ENGLISH

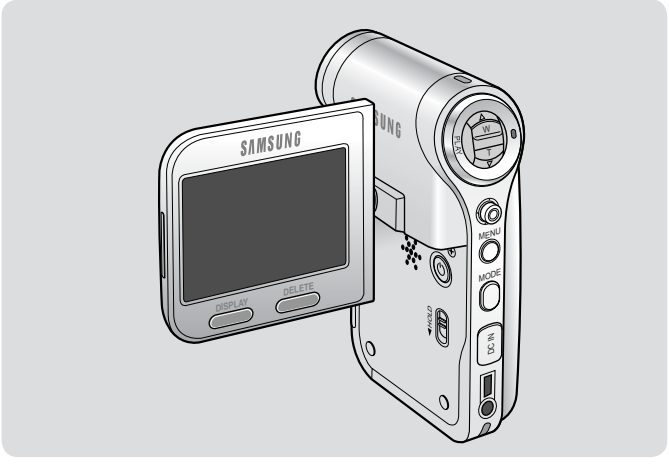
Sports Camcorder

SC-X205L/X210L/X220L

AF **Auto-Focus**

CCD **Charge Coupled Device**

LCD **Liquid Crystal Display**



Owner's Instruction Book

Before operating the unit, please read this Instruction Book thoroughly, and retain it for future reference.

SAMSUNG

US PATENT 4415844

Use only approved battery packs.
Otherwise, there is a danger of overheating, fire or explosion.
Samsung is not responsible for problems occurring due to using unapproved batteries.

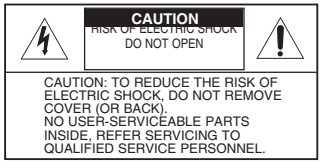
ENGLISH

Notices and Safety Instructions

Safety Instructions

Shock Hazard Marking and Associated Graphical Symbols

Explanation of Safety Related Symbols


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING - To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture.

1. **Read these instructions.**
2. **Keep these instructions.**
3. **Heed all warnings.**
4. **Follow all instructions.**
5. **Do not use this apparatus near water.**
6. **Clean only with dry cloth.**
7. **Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.**
8. **Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.**
9. **Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet. Consult an electrician for replacement of the obsolete outlet.**
10. **Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.**
11. **Only use attachments/accessories specified by the manufacturer.**
12. **Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.**

13. **Unplug this apparatus during lightning storms or when unused for long periods of time.**
14. **Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.**

Notices and Safety Instructions

15. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

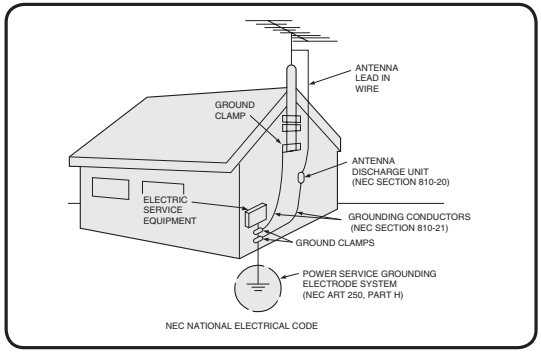
16. VENTILATION:
Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the CAMCORDER and to protect it from overheating. These openings must not be blocked or covered. Never place your CAMCORDER on a bed, sofa, rug, or other similar surface: on or near a radiator or heat register. This CAMCORDER should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

17. POWER SOURCES:
The CAMCORDER should be operated only from the type of power source indicated on the label.
If you are not sure of the type of power supply at your home, consult your appliance dealer or local power company.
A CAMCORDER is intended to be operated from battery power, or other sources, refer to the operating instructions.

18. GROUNDING OR POLARIZATION:
This CAMCORDER may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your outlet. Do not defeat the safety purpose of the polarized plug.

19. POWER-CORD PROTECTION:
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords or plugs, convenient receptacles, and the point where they exit from the unit.

20. OUTDOOR ANTENNA GROUNDING:
If an outside antenna or cable system is connected to the CAMCORDER, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges, Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire and supporting structure, grounding of the mast and supporting structure, grounding of the lead-in wire to an
antenna discharge unit, size of grounding to conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode.
See figure below.


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
NEC NATIONAL ELECTRICAL CODE

Notices and Safety Instructions

21. LIGHTNING:

For added protection of this CAMCORDER during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system.

This will prevent damage to the CAMCORDER due to lightning and power-line surges.

22. POWER LINES:

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

23. OVERLOADING:

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

24. OBJECTS AND LIQUIDS:

Never push objects of any kind into this CAMCORDER through openings as they may touch dangerous voltage points or short out a part that could result in a fire or electric shock.

Never spill liquids of any kind onto the CAMCORDER. Should spillage occur, unplug unit and have it checked by a technician before use.

25. SERVICING:

Do not attempt to service this CAMCORDER yourself. Opening or removing covers may expose you to dangerous voltage or other hazards.

Refer all servicing to qualified service personnel.

26. DAMAGE REQUIRING SERVICE:

Unplug this CAMCORDER from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. When the power-supply cord or plug is damaged.
b. If any liquid has been spilled onto, or objects have fallen into the CAMCORDER.
c. If the CAMCORDER has been exposed to rain or water.
d. If the CAMCORDER does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the CAMCORDER to its normal operation.
e. If the CAMCORDER has been dropped or the cabinet has been damaged.
f. When the CAMCORDER exhibits a distinct change in performance, this indicates a need for service.

27. REPLACEMENT PARTS:

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer and having the same characteristics as the original part.

Unauthorized substitutions may result in fire, electric shock or other hazards.

28. SAFETY CHECK:

Upon completion of any service or repairs to this CAMCORDER, ask the service technician to perform safety checks to determine that the CAMCORDER is in safe operating order.

Notices and Safety Instructions

29. To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.

30. If this power supply is used at 240V ac, a suitable plug adapter should be used.

USER INSTALLER CAUTION:
Your authority to operate this FCC certified equipment could be voided if you make changes or modifications not expressly approved by this party responsible for compliance to part 15 FCC rules.

NOTE:

(Hg) LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. For details see lamprecycle.org, eiae.org, or call 1-800-Samsung (726-7864)

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help and for additional suggestions.

The user may find the following booklet prepared by the Federal Communications Commission helpful : “How to Identify and Resolve Radio-TV Interference Problems.”
This Booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

FCC Warning
The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user’s authority to operate the equipment.

FCC ID : A3L06MM2MX2
This device complies with Part 15 of FCC Rules.
Operation is subject to the following two conditions;
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

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Notices and Safety Precautions

Precautions when using the Sports Camcorder

- ✤ Please note the following precautions for use:
- ✤ Please keep this device in a safe place. The device contains a lens that can be damaged by shock. Keep away from the reach of the children.

- ■ Do not place your device in a wet place. Moisture and water may cause the device to malfunction.
- ■ To avoid electric shock, do not touch your device or power cable with wet hands.
- ■ Do not use the flash close to another's eyes. The flash emits a strong light that may cause damage similar to direct sunlight on one's eyesight. Particular care should be observed if photographing infants, when the flash should be no less than 3 feet from your subject.
- ■ If the device is not working properly, please consult your nearest dealer or authorized Samsung service facility. Disassembling the device yourself may cause irrecoverable damage which will be difficult to repair.
- ■ Clean the device with a dry, soft cloth. Use a soft cloth moistened with a mild detergent solution for removing stains. Do not use any type of solvent, especially benzene, as it may seriously damage the finish.
- ■ Keep your device away from rain and saltwater. After using, clean the device. Saltwater may cause the parts to corrode.

Notices and Safety Precautions

Notes Regarding COPYRIGHT

- Television programs, movie video tapes, DVD titles, films and other program materials may be copyrighted. Unauthorized recording of copyrighted materials may infringe on the rights of the Copyright owners and is contrary to copyright laws.
- All the trade names and registered trademarks mentioned in this manual or other documentation provided with your Samsung product are trademarks or registered trademarks of their respective holders.

Notes Regarding Moisture Condensation

- **A sudden rise in atmospheric temperature may cause condensation to form inside the Sports Camcorder.**

For Example:

- Entering or leaving a heated place on a cold day might cause condensation inside the product.
- To prevent condensation, place the product in a carrying case or a plastic bag before exposing it to a sudden change of temperature.

Notes Regarding the Sports Camcorder

1. **Do not leave the Sports Camcorder exposed to high temperature (above 60°C or 140°F).**
   For example, in a parked closed car in summer or exposed to direct sunlight.

2. **Do not let the Sports Camcorder get wet.**
   Keep the Sports Camcorder away from rain, salt water, or any other form of moisture.
   The Sports Camcorder will be damaged if immersed in water or subjected to high levels of moisture.

Notices and Safety Precautions

Notes Regarding the Battery Pack

- ✤ We recommend using the original battery pack that is available at the retailer where you purchased the Sports Camcorder.
- ✤ Make sure the battery pack is fully charged before starting to record.
- ✤ To preserve battery power, keep the Sports Camcorder turned off when you are not operating it.
- ✤ If your device is left in STBY mode without being operated for more than 5 minutes, it will automatically turn itself off to protect against unnecessary battery discharge.
- ✤ Make sure that the battery pack is attached firmly in place.
- ✤ The new battery pack provided with the product is not charged.
  Before using the battery pack, you need to fully charge it.
- ✤ Do not drop the battery pack. Dropping the battery pack may damage it.
- ✤ Fully discharging a Lithium Polymer battery damages the internal cells. The battery pack may be prone to leakage when fully discharged.
- ✤ To avoid damage to the battery pack, make sure to remove the battery when no charge remains.
- ✤ Clean the terminal to remove foreign substance before inserting the battery pack.

✳ When the battery reaches the end of its life, please contact your local dealer.
Batteries must be disposed of as chemical waste.
✳ Be careful not to drop the battery pack when you release it from the Sports Camcorder.

Notices and Safety Precautions

Notes Regarding the Lens

- ✤ Do not film with the Sports Camcorder lens pointing directly at the sun.
  Direct sunlight can damage the CCD (Charge Coupled Device, the imaging sensor).

Notes Regarding the LCD Display

1. The LCD monitor has been manufactured using the high precision technology. However, there may be tiny dots (red, blue or green in color) that appear on the LCD monitor. These dots are normal and do not affect the recorded picture in any way.
2. When you use the LCD monitor under direct sunlight or outdoors, it may be difficult to see the picture clearly.
3. Direct sunlight can damage the LCD monitor.

Precautions Regarding Service

- ✤ Do not attempt to service the Sports Camcorder yourself.
- ✤ Opening or removing covers may expose you to dangerous voltage or other hazards.
- ✤ Refer all servicing to qualified service personnel.

Precautions Regarding Replacement Parts

- ✤ When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer and having the same characteristics as the original part.
- ✤ Unauthorized substitutions may result in fire, electric shock or other hazards.

Getting to Know Your Sports Camcorder

Features

- **Integrated Digital Sports Camcorder/DSC operation**
  An integrated digital imaging device that easily converts between a Digital Sports Camcorder and a Digital Still Camera with comfortable and easy recording.
- **High Resolution Image Quality (Digital Still Sports Camcorder)**
  Employing 680K CCD Pixel, a maximum resolution of 640X480 is available.
- **100x Digital Zoom**
  Allows the user to magnify an image up to 100x its original size.
- **Colorful TFT LCD**
  A high-resolution(230K) colorful TFT LCD gives you clean, sharp images as well as the ability to review your recorded files immediately.
- **Electronic Image Stabilizer (EIS)**
  With the Sports Camcorder, you can reduce unstable images by avoiding natural shaking movements.
- **Various Digital Effects**
  The DSE (Digital Special Effects) allows you to give the film a special look by adding various special effects.
- **USB Interface for Data Transfer**
  You can transfer still images and movie files or any other files to a PC using the USB interface.
- **PC Cam for multi-entertaining**
  You can use this the Sports Camcorder as a PC camera for video chatting, video conference and other PC camera applications.
- **Voice Record / Playback with vast memory**
  You can record voices and store it in the internal memory, memory card (not supplied) and play back the recorded voice files.
- **Plus Advantage, MP3**
  With the Sports Camcorder, you can play back MP3 files stored in the internal memory or memory card (not supplied).
  Enjoy your favorite songs with your Sports Camcorder.
- **A Sports Camcorder equipped with External Camera Module**
  The Sports Camcorder is equipped with an External Camera Module, which enables you to directly record when connected to the main unit
- **Weatherproof (External Camera Module only)**
  The External Camera Module is weatherproof according to IP42 standard.
  IP-Protection Level
  4- The External Camera is protected against contact from solid objects over 0.04inch in diameter.
  2- The External Camera is protected against water sprayed from a vertical position above the center of Sports Camcorder top (Power LED facing up) at 15 degree angles.
- **Multi OSD Language**
  Supports various foreign languages to display the menu and information.
  You can select the desired OSD language from OSD list.
- **Multi jack**
  The Multi jack functions as an Earphone, AV Input/Output or External Camera Module jack.
  You can use various functions with only one jack.

Getting to Know Your Sports Camcorder

Accessories Supplied with the Sports Camcorder

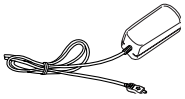
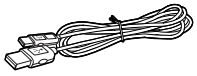
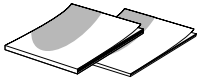
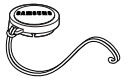
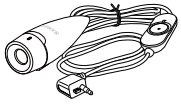
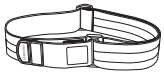
✤ Make sure that the following basic accessories are supplied with your Sports Camcorder.

Basic Accessories

1. Lithium Polymer Battery pack
2. AC Power Adapter
3. Audio/Video Cable
4. USB Cable
5. Earphones
6. Hand Strap
7. Instruction Book/Quick Guide
8. Software CD
9. Lens Cover
10. External Camera Module
11. Rubber Mount
12. Long Mount Band

Optional Accessories

13. Carrying Case
14. Extended life Battery pack

1. Lithium Polymer Battery pack AD43-00164A	2. AC Power Adapter  AD44-00105B	3. Audio/Video Cable AD39-00001B	4. USB Cable  AD39-00073D
5. Earphones AD30-00005A	6. Hand Strap AD81-00010A	7. Instruction Book/Quick Guide 	8. Software CD AD46-00061A / AD46-00082A
9. Lens Cover  AD97-11231A	10. External Camera Module  AD97-11230A	11. Rubber Mount AD73-00189A	12. Long Mount Band  AD61-02541A
13. *Carrying Case AD69-00804A	14. Extended life Battery pack AD43-00170A		

[Notes]

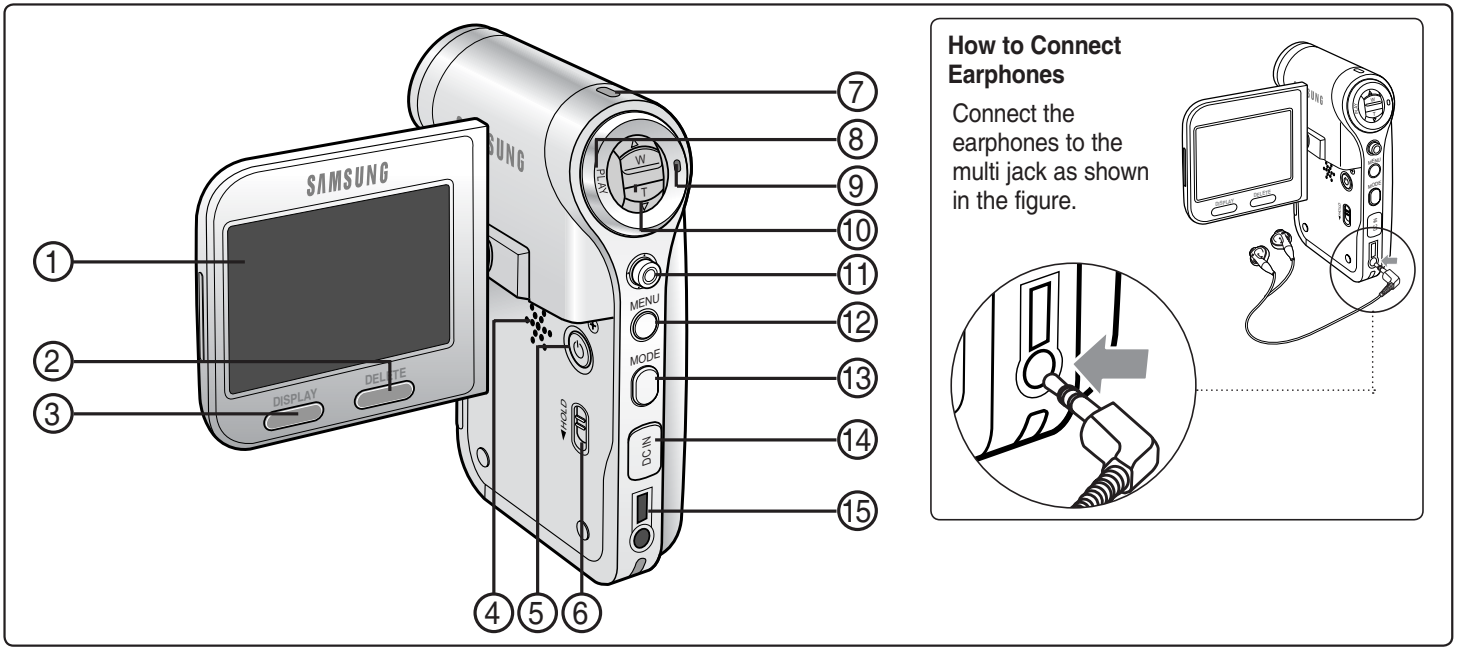
✤ *A carrying case is supplied as a basic accessory with the SC-X210L/X220L. It is not supplied with the SC-X205L, but is available as an optional accessory.

✤ Parts and accessories are available at your local Samsung dealer.

✤ You can download programs, the latest driver software, and audio/video CODECs from the Samsung Electronics webpage. (www.samsung.com)

Location of Controls

Rear & Left View



How to Connect Earphones

Connect the earphones to the multi jack as shown in the figure.

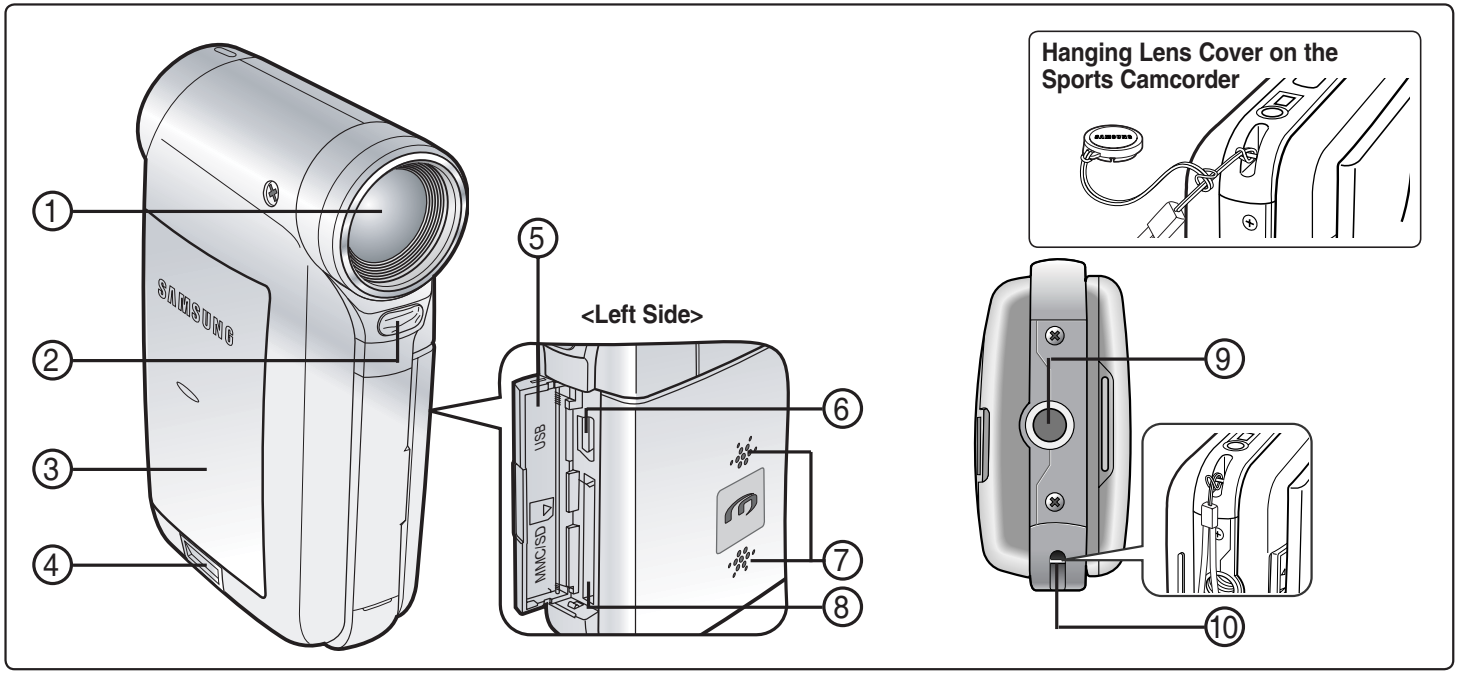
1. **LCD monitor**
2. **DELETE button**
3. **DISPLAY button**
4. **Built-in speaker**
5. **POWER button**
6. **MP3/External Camera Module HOLD switch**
7. **Record / Power/Charging indicator**
8. **PLAY button**
9. **Record/Stop button**
10. **[W/T] switch**
11. **Joystick (Up, Down, Left, Right, OK)**
12. **MENU button**
13. **MODE button**
14. **DC IN jack**
15. **Multi jack**

[Note]

✤ Multi jack is a unified Earphones, AV Input/Output and External Camera Module jack.

Location of Controls

Side & Bottom View

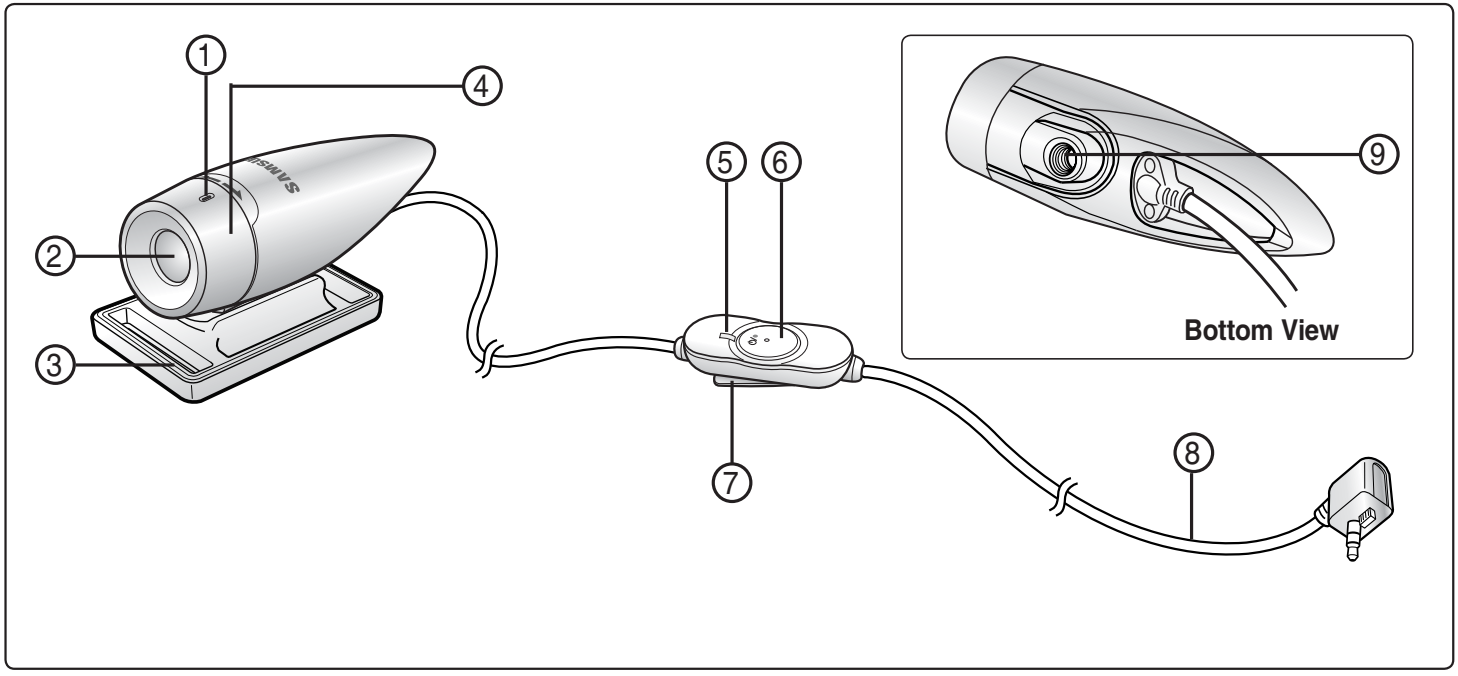


1. Lens
2. Flash
3. Battery pack
4. Battery eject switch
5. Front cover
6. USB port
7. Built-in microphone
8. Memory card slot
9. Tripod receptacle
10. Strap hook

Usable Memory Cards (2GB Max)

Location of Controls

External Camera Module View

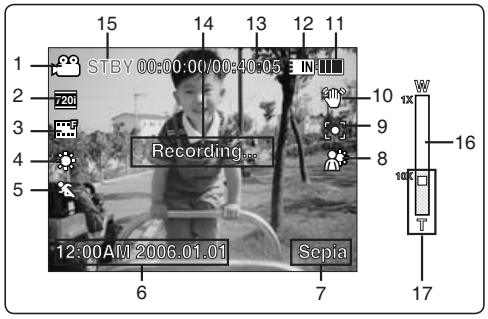


1. Built-in microphone
2. Lens
3. Rubber Mount
4. Picture Rotator
5. Record/Power indicator
6. POWER/Record/Stop button
7. Clip
8. External Camera Module cable
9. Rubber Mount receptacle

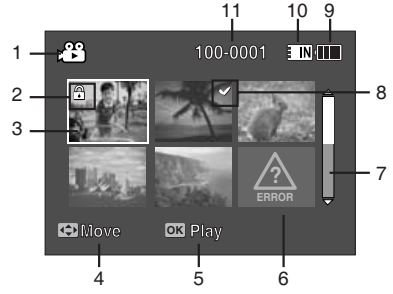
Location of Controls : LCD Display

OSD (On Screen Display in Movie Record Mode/Movie Play Mode)

Movie Record Mode	Movie Play Mode	Movie Play Mode



1. Mode indicator
2. Image size indicator
3. Image quality indicator
4. White balance indicator
5. Program AE indicator
6. Date/Time indicator
7. Effect indicator
8. BLC indicator *
9. Focus indicator *
10 EIS indicator
11. Battery life indicator
12. Memory type indicator
13. Counter
    (Elapsed time/Remaining time)
14. Warning and note indicator
15. Record/Stop indicator
16. Optical zoom indicator
17. Digital zoom indicator



1. Mode indicator
2. Lock indicator
3. Current display indicator
4. Move (Help Key)
5. Play (Help Key)
6. Damaged file indicator
7. Scroll bar
8. Multi selection indicator
9. Battery life indicator
10. Memory type indicator
11. Image counter (Current image)

12. Image size indicator
13. Date/Time indicator
14. Volume indicator
15. Counter
    (Elapsed time/Recorded time)

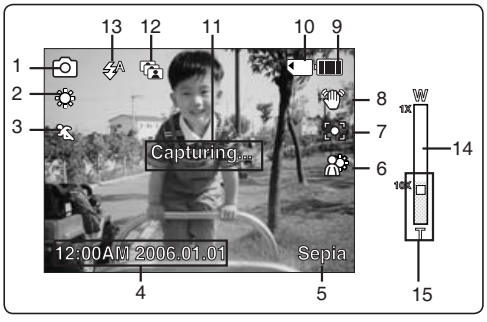
[Notes]

- Settings indicated with * will not be retained when the Sports Camcorder is turned off.
- The OSD indicators of this product are based on model SC-X210L.
- The OSD indicators are based on internal memory.

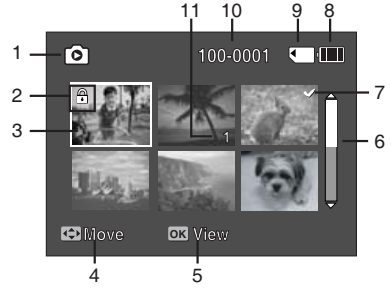
Location of Controls : LCD Display

OSD (On Screen Display in Photo Capture Mode/Photo View Mode)

Photo Capture Mode	Photo View Mode	Photo View Mode



1. Mode indicator
2. White balance indicator
3. Program AE indicator
4. Date/Time indicator
5. Effect indicator
6. BLC indicator *
7. Focus indicator *
8. EIS indicator
9. Battery life indicator
10. Memory type indicator
11. Warning and note indicator
12. Multi shot indicator
13. Flash indicator
14. Optical zoom indicator
15. Digital zoom indicator



1. Mode indicator
2. Lock indicator
3. Current display indicator
4. Move (Help Key)
5. View (Help Key)
6. Scroll bar indicator
7. Multi selection indicator
8. Battery life indicator
9. Memory type indicator
10. Image counter indicator (Current image)
11. DPOF indicator

12. Date/Time indicator

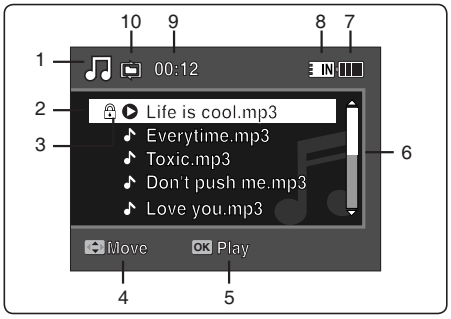
[Notes]

- Settings indicated with * will not be retained when the Sports Camcorder is turned off.
- The OSD indicators are based on internal memory.

Location of Controls : LCD Display

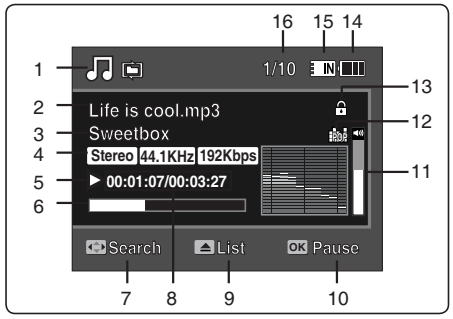
OSD (On Screen Display in MP3 Mode)

MP3 Mode



1. Mode indicator
2. File name indicator
3. Lock indicator
4. Move (Help Key)
5. Play (Help Key)
6. Scroll bar indicator
7. Battery life indicator
8. Memory type indicator
9. Counter(Elapsed time)
10. Repeat indicator

MP3 Mode



1. Mode indicator
2. File name indicator
3. Artist indicator
4. Sampling rate/Bit rate
5. Operation indicator
6. Progress bar indicator
7. Search (Help Key)
8. Counter(Elapsed time/Full time)
9. List (Help Key)
10. Play/Pause (Help Key)
11. Volume indicator
12. Equalizer indicator
13. Lock indicator
14. Battery life indicator
15. Memory type indicator
16. File number indicator (Current / Total)

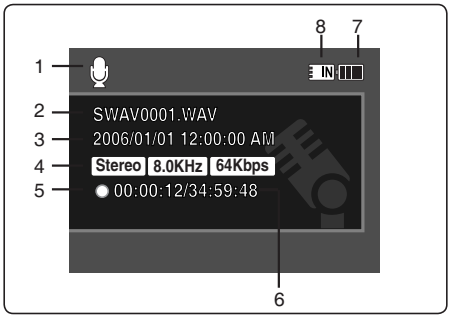
[Notes]

- ✤ Settings will be retained when the Sports Camcorder is turned off.
- ✤ The MP3 file with tag information will display the artist name. MP3 files with no tag information will leave the item blank.

Location of Controls : LCD Display

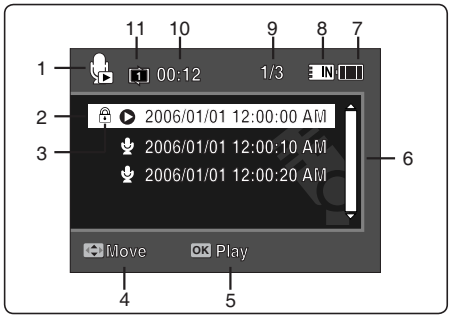
OSD (On Screen Display in Voice Record Mode/Voice Play Mode)

Voice Record Mode



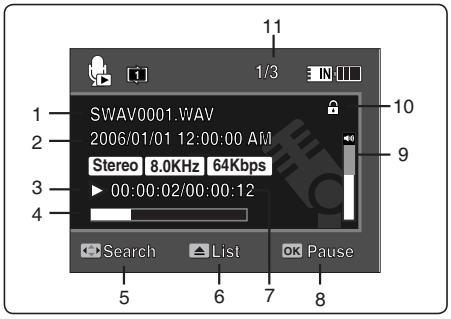
1. Mode indicator
2. File name indicator
3. Date/Time indicator
4. Sampling rate/Bit rate
5. Operation indicator
6. Counter
   (Elapsed Time / Remaining Time)
7. Battery life indicator
8. Memory type indicator

Voice Play Mode



1. Mode indicator
2. Date/Time indicator
3. Lock indicator
4. Move (Help Key)
5. Play (Help Key)
6. Scroll bar indicator
7. Battery life indicator
8. Memory type indicator
9. File number indicator
   (Current / Total)
10. Counter(Elapsed time)
11. Repeat indicator

Voice Play Mode



1. File name indicator
2. Date/Time indicator
3. Operation indicator
4. Progress bar indicator
5. Search (Help Key)
6. List (Help Key)
7. Counter
   (Elapsed time / Recorded time)
8. Play/Pause/Stop (Help Key)
9. Volume indicator
10. Lock indicator
11. File Number (Current / Total)

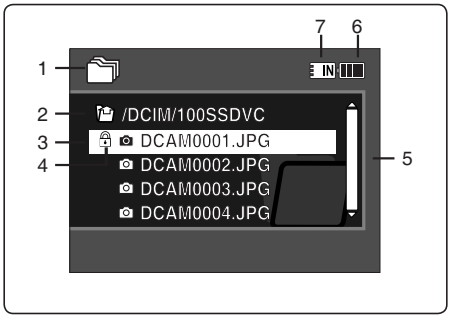
[Note]

✤ Settings will be retained when the Sports Camcorder is turned off.

Location of Controls : LCD Display

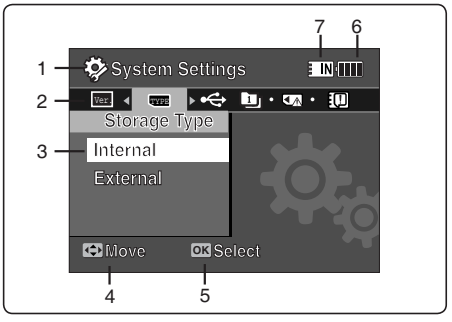
OSD (On Screen Display in File Browser Mode/System Settings Mode)

File Browser Mode



1. Mode indicator
2. Current selected folder indicator
3. Current selected file indicator
4. Lock indicator
5. Scroll bar indicator
6. Battery life indicator
7. Memory type indicator

System Settings Mode



1. Mode indicator
2. Menu tab
3. Setup item
4. Move (Help Key)
5. Select (Help Key)
6. Battery life indicator
7. Memory type indicator

How to Use the Battery Pack

Battery Pack Installation / Ejection

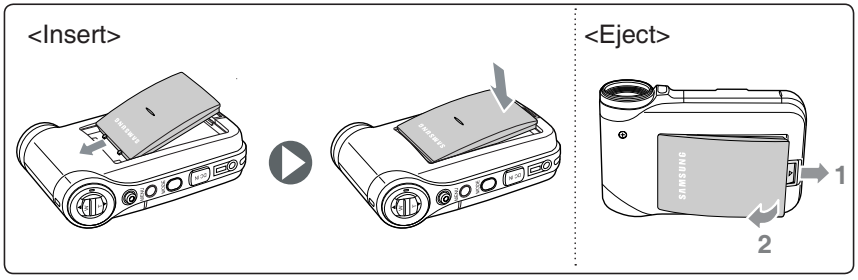
It is recommended you purchase one or more additional battery packs to allow continuous use of your Sports Camcorder.

To insert the battery pack

Slide the battery pack into the groove until it clicks.

To eject the battery pack

Pull the Battery eject switch to eject the battery pack.



Battery
SB-P120A (1200mAh)
SB-P190A (1900mAh)

[Notes]

- Clean the terminals to remove foreign substances before inserting the battery pack.
- If the Sports Camcorder will not be in use for a while, remove the battery pack from the Sports Camcorder.

How to Use the Battery Pack

Maintaining the Battery Pack

- ✤ The battery pack should be recharged in an environment of between 32°F(0°C) and 104°F(40°C).
- ✤ The battery pack should never be charged in a room temperature that is below 32°F(0°C).
- ✤ The life and capacity of the battery pack will be reduced if it is used in temperatures below 32°F(0°C) or left in temperatures above 104°F(40°C) for a long period.
- ✤ Do not put the battery pack near any heat sources (fire or flames, for example).
- ✤ Do not disassemble, process, press or heat the Battery Pack.
- ✤ Do not allow the + and - terminals of the battery pack to be short-circuited. It may cause leakage, heat generation, induce fire and overheating.
- ✤ It is recommended that you use the original Samsung Battery Pack that is available at the retailer where you purchased the Sports Camcorder.

Continuous recording time based on battery type

If you close the LCD screen, it switches off automatically.
The continuous recording times given in the table below are approximations. Actual recording time depends on usage.

Time / Battery	Continuous Recording Time	
	LCD ON	Backlight OFF
SB-P120A (1200mAh)	Approx. 1 hr. 20 min.	Approx. 1 hr. 40 min.
SB-P190A (1900mAh)	Approx. 2 hr. 30 min.	Approx. 2 hr. 50 min.

[Warning]

- ✤ When you eject the battery pack from the Sports Camcorder, hold the battery pack to prevent it from dropping to the floor.

[Notes]

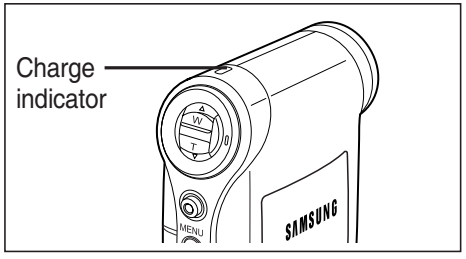
- ✤ Prepare an extra battery if you use the Sports Camcorder outdoors.
- ✤ Contact a Samsung retailer to purchase a new battery pack.
- ✤ If you zoom in or out, the recording time becomes shorter.
- ✤ 'The Continuous Recording Time' listed is approximate and is affected by functions such as zooming.

How to Use the Battery Pack

Battery Level Display

The Battery Level Display shows the amount of battery power remaining in the Battery Pack.

Battery Level Indicator	State	Message
	Fully charged	-
	20~40% used	-
	40~60% used	-
	60~80% used	-
	80~95% used	-
	Exhausted(flickers) The device will soon turn off. Change the Battery Pack as soon as possible.	-
	(flickers) The device will be forced to turn off after 5 seconds.	"Low battery"



Tips for Battery Identification

If the battery has been fully charged, the charge indicator is green.
If you are charging the battery, the color of the charge indicator is orange.
The charge indicator flickers if the battery is abnormal.

Charging time based on battery type

Capacity	using AC Power Adapter	using USB cable
SB-P120A (1200mAh)	Approx. 1 hr. 50 min	Approx. 3hr. 40 min
SB-P190A (1900mAh)	Approx. 3 hr. 20 min	Approx. 6hr. 20 min

[Notes]

- ✤ You may charge your Sports Camcorder by connecting it to a PC with the USB cable.
- ✤ You may not charge via USB if the power is on.
- ✤ The charging time with the USB cable may differ depending on the PC.

How to Use the Battery Pack

Charging the Battery Pack

1. Turn off the Sports Camcorder by pressing the [POWER] button.

2. Insert the Battery Pack to the unit.

3. Open the connector cover of the unit.

4. Charge the battery pack with using AC Power Adapter or USB Cable.

AC Power Adapter	Connect the AC Power Adapter with the Sports Camcorder properly and plug the AC Power Adapter to the wall outlet.
USB Cable	Connect the USB Cable with the Sports Camcorder properly and connect the other side to a USB port of a PC.

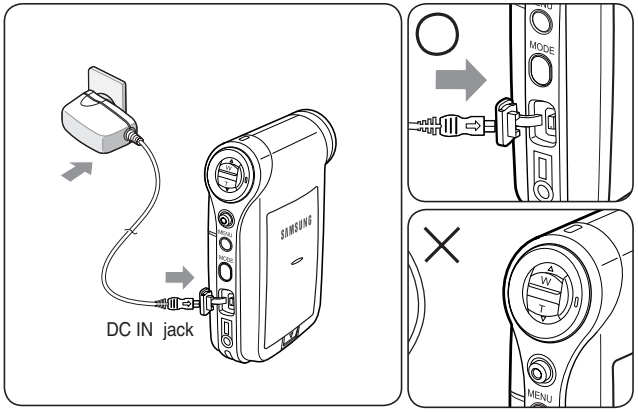
[Note]

✤ You may use the Sports Camcorder powered by the AC Power Adapter indoors where available.

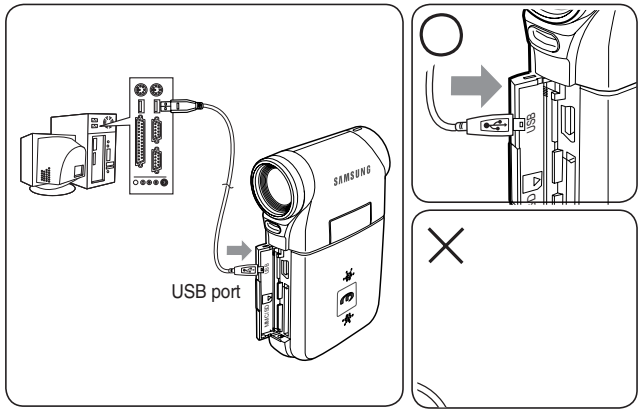
[Warning]

✤ It is recommended you fully charge the battery pack before use.
✤ You should only charge the battery in an environment between 32°F and 104°F.
✤ If ambient temperature is too low when charging, it may take long to fully charge or may not fully charge the battery, which results the green indicator will not turn on.
✤ Before connecting the cable, make sure that you don't have any foreign substances between connectors.

Connecting the AC Power Adapter



Connecting the USB Cable



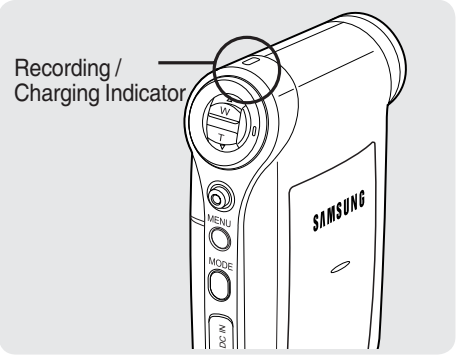
Getting Started

The LED Color

The LED Color indicates the power or charge status.

Recording / Charging Indicator

LED Color	During Recording	During Charging
Red	Recording <Movie and Voice Recorder Mode>	-
Orange	-	Charging
Green	-	Fully Charged



Power Indicator

LED Color	Power
Blue	On

Before You Start Operating the Sports Camcorder

Before using the Sports Camcorder, refer to this page for easy operation. The memory card is not supplied.

1. **Insert the Battery Pack and insert a memory card into the Memory Card slot.** ➥page 34
2. **Charge the Battery Pack by directly connecting the AC Power Adapter to the Sports Camcorder.** ➥page 25
3. **Press the [POWER] button to turn on the Sports Camcorder.**
4. **Select the desired mode by pressing the [MODE] button.**
5. **Press the [Record / Stop] button to take a picture, start recording movie / voice.**
6. **When finished, press the [POWER] button to turn the Sports Camcorder off.**

Getting Started

Using the MODE button

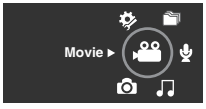
The Mode button is used to change the Sports Camcorder mode. Available modes are Movie, Photo, MP3, Voice Recorder, File Browser and System Settings.

Setting the Mode

Set the desired mode by pressing the [MODE] button.

The Sports Camcorder switches to the designated mode.

Functions of Each Mode



Movie mode

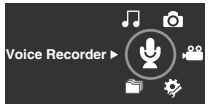
You can record and play movie files.

Photo mode

You can take and view photo files.

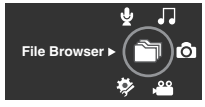
MP3 mode

You can play back mp3 files.



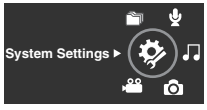
Voice Recorder mode

You can record and listen to voice files.



File Browser mode

You can delete, lock, copy the file and view file information.



System Settings mode

Using this mode, you can set / adjust settings regarding the LCD display, Date / Time, Reset and Memory management.

Power Saving Function

The LCD monitor is turned off after a certain period of time has passed (see below) in each mode in order to prevent unnecessary battery power consumption.
Press any button to go back and turn on the LCD monitor.

Mode	Video	Photo	MP3	Voice	File Browser	System Settings	USB
Time	10 min.	3 min.	30 sec.	30 sec.	30 sec.	60 sec.	60 sec.

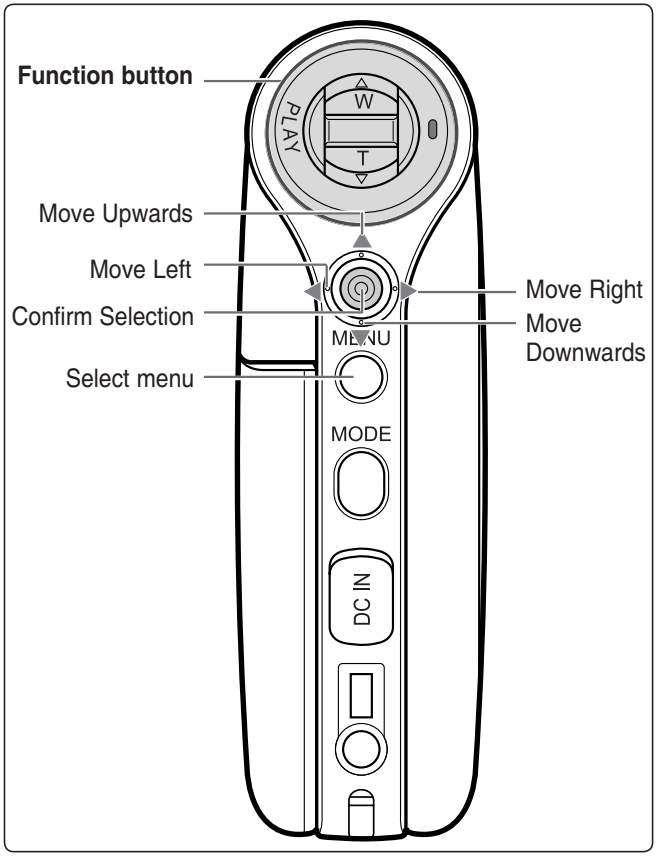
Getting Started

Using the Function button

The Function button is used to make a selection, move the cursor, select the functions and exit from the menu.

Using the Function button

Button	Recording / Capturing	Playing/Viewing
	Zoom out (▲)	Multi-Play screen / List
	Zoom in (▼)	-
	Change from Record/ Capture to Play/View	Play/Pause
	Recording	Change from Play/View to Record/Capture



Using the Joystick

✤ The joystick is used to make a selection, move the cursor, select functions, and exit from the menu.

1. **Move the cursor left / right by moving the [Joystick].**
2. **Move the cursor up / down by moving the [Joystick].**
   - ◆ You can adjust the volume by moving the [Joystick] (up / down) in ***Movie*** / ***MP3*** / ***Voice Recorder*** playback modes
3. **Confirm your selection by pressing the [Joystick(OK)].**

Using the MENU button

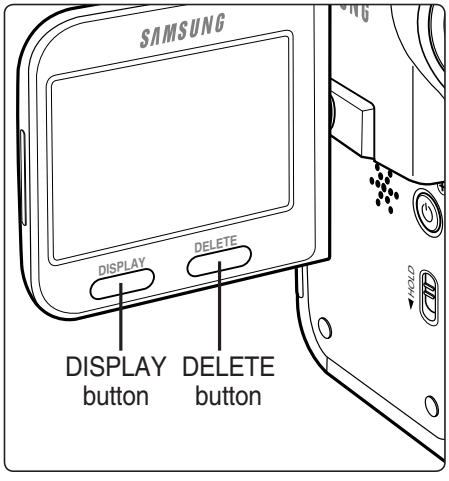
1. **Set the desired mode by pressing the [MODE] button.**
2. **Press the [MENU] button.**
3. **Move the cursor by moving the [Joystick] up / down / left / right to select desired menu item, and then press the [Joystick(OK)] to confirm.**
4. **Press the [MENU] button to finish.**

Getting Started

Using the DISPLAY button

Each press of the [DISPLAY] button toggles the OSD indicator on and off.

1. **Open the LCD monitor.**
2. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The movie screen appears.
   - You can select Movie mode or Previous mode as the start-up mode in System Settings. ➥page 109
3. **Press the [DISPLAY] button.**



If you press the [DISPLAY] button in Movie and Photo modes

- Once : All indicators will disappear on the screen.
- Twice : The backlight turns off.
- 3 times : It returns to the initial screen.

[Note]

- Above description applies to the Movie and Photo mode.

If you press the [DISPLAY] button in another mode

- Once : The back light turns off.
- Twice : It returns to the initial screen.

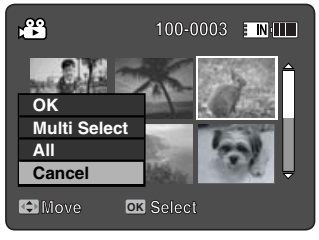
[Note]

- Above description applies to the MP3/Voice Recorder/File Browser/System Settings mode.

Using the DELETE button

The [DELETE] button is used to delete saved files.

- **<OK>**: The selected file is deleted.
- **<Multi Select>**: The selected files will be deleted.
- **<All>**: All files will be deleted.
- **<Cancel>**: Cancels deletion.



Getting Started

Structure of the Folders and Files

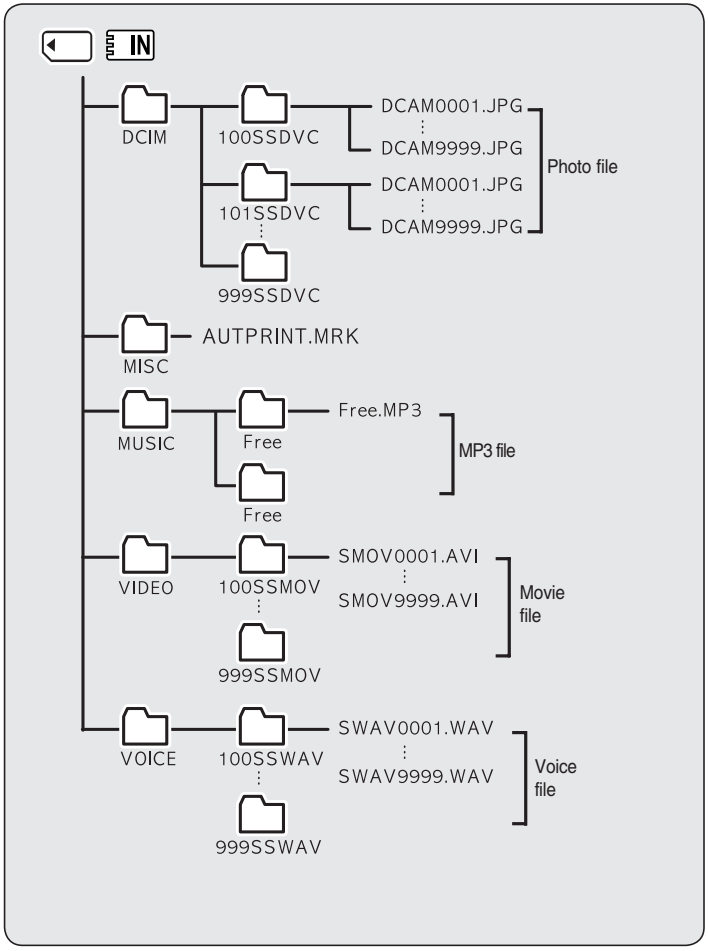
The movie files and photo files are stored in internal memory or on a memory card as shown below.

[Notes]

- Refer to page 33 for details about memory card.
- You can store general data in files and folders of the Sports Camcorder.
- You can store up to 9,999 files and 999 folders.
- DCAM****.JPG: Photo file
  SMOV****.AVI: Movie file
  SWAV****.WAV: Voice file
  ********.MP3: MP3 file
- MISC: DPOF files are stored.
- You can freely change the file or folder names in the Music folder.
- Movie files made on other manufacturers' equipment may not play on this Sports Camcorder.

[Warning]

- Do not turn the power off while recording, playing, erasing files or formatting.
- Turn the power off before you insert or eject the memory card to avoid losing data.
- Save important files separately.
- Memory cards are made with precision technology. They are sensitive and vulnerable to electric shock, temperature and humidity. Be cautious with handling them to avoid losing data.
- Damaged data may not be recovered, and SAMSUNG is not responsible for lost data. Make sure to back up important files on your PC separately.



Getting Started

Recording Time and Capacity

Movie Record Time

Media	Capacity	Super Fine		Fine		Normal	
		352p	720i/720p	352p	720i/720p	352p	720i/720p
Internal Memory	512MB (SC-X205L)	approx. 21min.	approx. 14min.	approx. 32min.	approx. 21min.	approx. 65min.	approx. 32min.
	1GB (SC-X210L)	approx. 43min.	approx. 29min.	approx. 65min.	approx. 43min.	approx. 131min.	approx. 65min.
	2GB (SC-X220L)	approx. 86min.	approx. 58min.	approx. 130min.	approx. 86min.	approx. 262min.	approx. 130min.
SD/MMC	32MB	approx. 1min. 20sec.	approx. 50sec.	approx. 2min.	approx. 1min. 20sec.	approx. 4min.	approx. 2min.
	64MB	approx. 3min.	approx. 2min.	approx. 4min.	approx. 3min.	approx. 7min.	approx. 4min.
	128MB	approx. 4min.	approx. 3min.	approx. 7min.	approx. 4min.	approx. 17min.	approx. 7min.
	256MB	approx. 11min.	approx. 7min.	approx. 17min.	approx. 11min.	approx. 32min.	approx. 17min.
	512MB	approx. 21min.	approx. 14min.	approx. 32min.	approx. 21min.	approx. 65min.	approx. 32min.
	1GB	approx. 43min.	approx. 29min.	approx. 65min.	approx. 43min.	approx. 131min.	approx. 65min.
	2GB	approx. 86min.	approx. 58min.	approx. 130min.	approx. 86min.	approx. 262min.	approx. 130min.

[Notes]

- The recording time and capacity is an approximation.
- The recording time shown are maximum figures based on using one function.
  In actual use, using more than one function will reduce the capacity of each.
- The compressibility is changed automatically depending on the recorded images. The maximum recording time and capacity can be changed in 'Movie Record'.
- The Sports camcorder supports 2GB memory cards and lower. Any card above 2GB may not record or play properly.
- If you record movie files at Normal(352/720) quality to the internal memory or a memory card, the recording time increases but the movie may have lower quality than other levels.
- The recording time and capacity may vary if a bad sector(section) is generated when you record movie files to a memory card.

Getting Started

Number of Photos that can be taken

Media	Capacity	Quality
		640x480
Internal Memory	512MB (SC-X205L)	approx. 2875
	1GB (SC-X210L)	approx. 5754
	2GB (SC-X220L)	approx. 11511
SD/MMC	32MB	approx. 177
	64MB	approx. 357
	128MB	approx. 716
	256MB	approx. 1436
	512MB	approx. 2875
	1GB	approx. 5754
	2GB	approx. 11511

Voice Record Time

Media	Capacity	Time
Internal Memory	512MB (SC-X205L)	approx. 17hr.
	1GB (SC-X210L)	approx. 35hr.
	2GB (SC-X220L)	approx. 70hr.
SD/MMC	32MB	approx. 1hr.
	64MB	approx. 2hr.
	128MB	approx. 4hr.
	256MB	approx. 8hr.
	512MB	approx. 17hr.
	1GB	approx. 35hr.
	2GB	approx. 70hr.

Number of MP3 files that can be saved

Media	Capacity	MP3 files
Internal Memory	512MB (SC-X205L)	approx. 128files
	1GB (SC-X210L)	approx. 256files
	2GB (SC-X220L)	approx. 512files
SD/MMC	32MB	approx. 8files
	64MB	approx. 16files
	128MB	approx. 32files
	256MB	approx. 64files
	512MB	approx. 128files
	1GB	approx. 256files
	2GB	approx. 512files

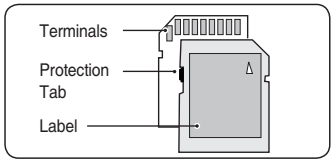
[Notes]

- Number of MP3 files that can be saved is based on 128Kbps sampling / 4MB size.
- Capacity may vary depending on file size.
- You must only format the memory card on the Sports Camcorder. ➥page 100
- Do not format the memory card on your PC.
- If you set the light on, the number of photos that can be taken will be reduced.
- The recordable time and number of files are maximum figures based on using one function.
  In actual use, using more than one function will reduce the capacity of each.
- While saving to a Memory Card, recording may stop and a message will appear saying <Low speed card. Please record at lower quality.> It is because the writing speed of the Memory Card is slow. We recommended using a Memory Card of 1.25MB/sec or greater.

Getting Started

Using a Memory card (SD/MMC) (not supplied)

- Samsung is not responsible for data loss due to misuse.
- Turning the power off / ejecting the memory card during memory operation such as formatting, deleting, recording, and playback may damage the data.
- You may modify the name of a file / folder stored in the memory card using a PC. The Sports Camcorder may not recognize modified files.
- It is recommended that you power off before inserting or ejecting the memory card to avoid losing data.
- It is not guaranteed that you may use a memory card formatted on other devices. Be sure to format your memory card using the Sports Camcorder.
- Save important files separately on other media, such as floppy disk, hard disk, or CD.
- You have to format newly-purchased memory cards, memory cards that the Sports Camcorder cannot recognize or the cards that have data saved by other devices.
- A memory card has a certain life span. If you use it for a long time, you may not be able to record new data. In this case, you have to purchase a new memory card.
- Do not bend, drop, or apply a strong impact to the Memory Card.
- Do not use or store in a hot, dusty or humid environment.
- Do not allow foreign substances on the memory card terminals. Use a soft dry cloth to clean the terminals if required.
- Use a memory card case to avoid losing data from moving and static electricity.
- After a period of use, the memory card may get warm. This is normal and not a malfunction.
- Damaged data may not be recovered, and SAMSUNG is not responsible for the lost data. Make sure to back up important files separately on a PC.
- miniSD/RS-MMC cards must be inserted in a special card adapter in order to be used.
- Be sure to insert miniSD/RS-MMC cards in the dedicated card adapter before use. Inserting a card in the Sports Camcorder without the adapter may damage the Sports Camcorder or the card.
- Do not insert an empty card adapter in the Sports Camcorder. Do not leave the adapter in the Sports Camcorder while inserting or removing miniSD/RS-MMC cards. This may cause the Sports Camcorder to malfunction.



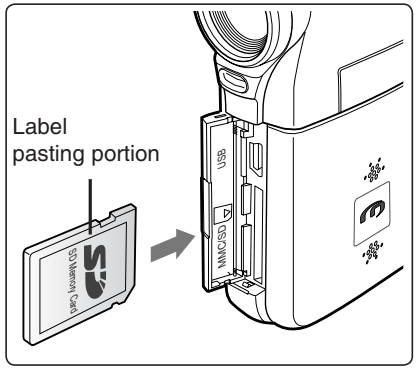
<SD/MMC>

Getting Started

Inserting / Ejecting the memory card (SD/MMC) (not supplied)

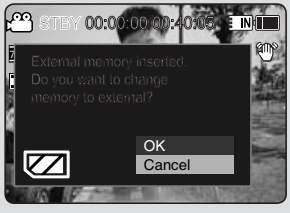
Inserting a memory card

1. **Open the Front cover.**
2. **Insert the memory card into the memory card slot until it softly clicks.**
3. **Close the Front cover.**



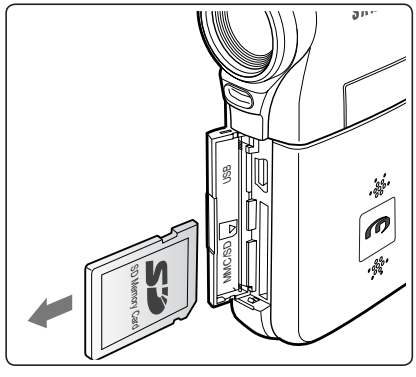
Caution: This screen will appear if the memory card is inserted with the power on.

- If you select <OK>, the memory type changes to 'External' and if you select <Cancel>, files are stored in internal memory.
- If you insert a locked memory card, the [🔒] icon is displayed next to the memory type indicator.



Ejecting a memory card

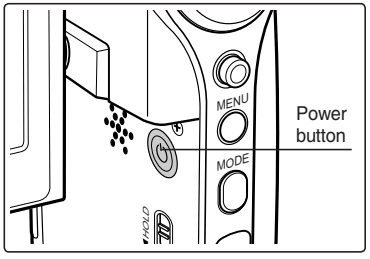
1. **Open the Front cover.**
2. **Slightly push the memory card inwards to pop it out.**
3. **Pull the memory card out of the memory card slot and close the Front cover.**



1 Movie Mode

How to set to Movie mode

1. Press the [POWER] button to turn on the Sports Camcorder.



2. The *Movie* Record screen appears.

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Recording 36
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Setting the Recording Options 41
Setting the Movie Size 41
Setting the Movie Quality 42
Setting the White Balance 43
Setting the Program AE (Programmed Auto Exposure) 44
Setting the Effects 45
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Setting the Digital Zoom 49
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◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

Movie Mode : Recording

Recording

You can record video and store it in memory.
Refer to the page 119 for recording video using the External Camera Module.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.
- ◆ You can select Movie mode or Previous mode as the start-up mode in System Settings. ➥ page 109

2. Press [Record/Stop] button to start recording.
- ◆ [●] indicator displays on the LCD monitor..
- ◆ The elapsed and remaining times are displayed and the Sports Camcorder starts recording.

3. Press the [Record/Stop] button again to stop recording.
- ◆ The Sports Camcorder stops recording.

4. After recording, press the [POWER] button to turn off the Sports Camcorder to prevent battery power consumption.

Reading the Counter

- ◆ The timestamp will be recorded along with the movie to enable faster searching.
- ◆

[Notes]
- ✤ If the Auto Shut Off is set, the Sports Camcorder turns off automatically after 5 minutes.
- ✤ Detach the Battery Pack when you finish recording to prevent unnecessary battery power consumption.
- ✤ To adjust the LCD screen brightness, set the <LCD Brightness> in System Settings mode. ➥page 102
- ✤ The LCD monitor brightness will not affect the brightness of the recording.
- ✤ If you are recording with the LCD panel closed outward, the microphone will be blocked inward as well, which can cause deterioration of the sound strength and make noise. So make sure the microphone stays open outward in recording.

Movie Mode : Recording

Zooming In and Out

Zooming allows you to change the size of the subject captured in a scene.
You can take advantage of the 10x optical electro motion zoom lens.

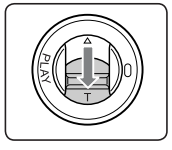
1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.
- ◆ You can select Movie mode or Previous mode as the start-up mode in System Settings. ➥page 109

2. Press the [Record/Stop] button to start recording.

Slide the [W/T] switch up to zoom out.

- The shot subject's size is reduced, and you can record movies as if you were far away from the subject.
- On the zoom indicator in the LCD screen, the arrow moves to W.
- The smallest rate of zoom out is the default rate (original resolution of the subject).



Slide the [W/T] switch down to zoom in.

- The subject is larger, and you can record movies as if you were close to the subject.
- On the zoom indicator the arrow moves to T.
- The largest optical zoom ratio is 10x.

[Notes]

- ✤ Frequent use of zooming may result in higher battery power consumption.
- ✤ Optical zoom preserves the image quality.
- ✤ Refer to page 49 to read about Digital Zoom.

Movie Mode : Playing

Playing Movie Files on the LCD monitor

You can view playback of movie files on the LCD monitor.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Press the [PLAY] button or [Joystick(OK)].
- ◆ Switches to Movie Play mode.

3. Move the [Joystick] left/right to find the movie file you want to view.
- ◆ Each movement of the [Joystick] goes to the previous/next movie.

4. Press the [PLAY]button or [Joystick(OK)] to play the movie file you want.
- ◆ Each time you press the [PLAY] button or [Joystick(OK)], play or pause is selected repeatedly.

[Notes]
- ✤ To adjust volume, move the [Joystick] up/down during playback.
- ✤ If there is no file stored to view, the message <No Files...> appears.

Movie Mode : Playing

Playing Multiple Movie Files

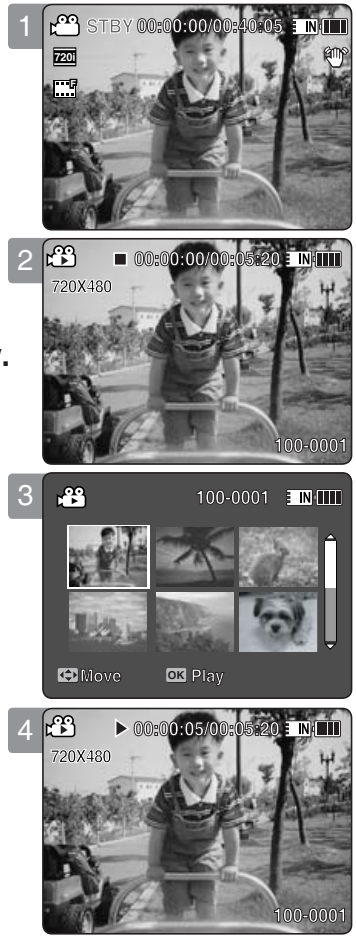
Using the [W/T] switch in Movie Play mode, you can display multiple images on the LCD monitor. You can also select and play the desired movie file in a multi-view screen.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Press the [PLAY] button or [Joystick(OK)] and move the [W/T] switch to W(WIDE).
- ◆ The Multi-view screen appears.

3. Move the [Joystick] to left/right/up/down to find the movie file you want to play.

4. Press the [PLAY] button or [Joystick(OK)] to play the movie file you want.
- ◆ Each time you press the [PLAY] button or [Joystick(OK)], play or pause is selected repeatedly.



[Notes]
- ✤ If there is no file stored to view, the message <No Files...> appears.
- ✤ When the earphones, Audio / Video cable or External Camera Module is connected to the Sports Camcorder, the built-in speaker will automatically turn off.

Movie Mode : Playing

Controls used to play the movie file

[PLAY] button or [Joystick(OK)]: Play or pause the movie file
[W] switch: The Multi-play screen appears.
[Joystick](left): In Movie Play mode: Press it to move to previous file.
Press and hold it to use RPS (Reverse Playback Search) function.
(RPS rate: 2x→4x→8x→16x→32x→64x→128x)
[Joystick](right): In Movie Play mode: Press it to move to next file.
Press and hold it to use FPS (Forward Playback Search) function.
(FPS rate: 2x→4x→8x→16x→32x→64x→128x)
In Movie Play mode: Press and hold it to play slowly when paused.
Press it to move to the next frame when paused.

Adjusting the Sound

1. **Press the [PLAY] button or [Joystick(OK)] to play the movie file in Movie play mode.**
2. **Move the [Joystick] up to increase the volume.**
   - ◆ Each time you move the [Joystick] up, the volume bar increases and the sound level will get louder.
   - ◆ The volume bar disappears after 1~2 seconds.
3. **Move the [Joystick] down to decrease the volume.**
   - ◆ Each time you move the [Joystick] down, the volume bar decreases and the sound level will get quieter.
   - ◆ The volume bar disappears after 1~2 seconds.

[Notes]

- ✤ You can adjust the volume up to 10 steps.
- ✤ You can also play the movie file on a TV screen by connecting the Sports Camcorder to a TV. ➥page 127
- ✤ A video codec is required to play the movie files recorded on the Sports Camcorder on a computer.
  Install the software provided in the Software CD to have the CODEC automatically installed in the system. If you do not have the CD, search the product model name in the Download Center on the Samsung Electronics home page (www.samsung.com) to get the CODEC installation file. ➥page 124

Movie Mode : Setting the Recording Options

Setting the Movie Size

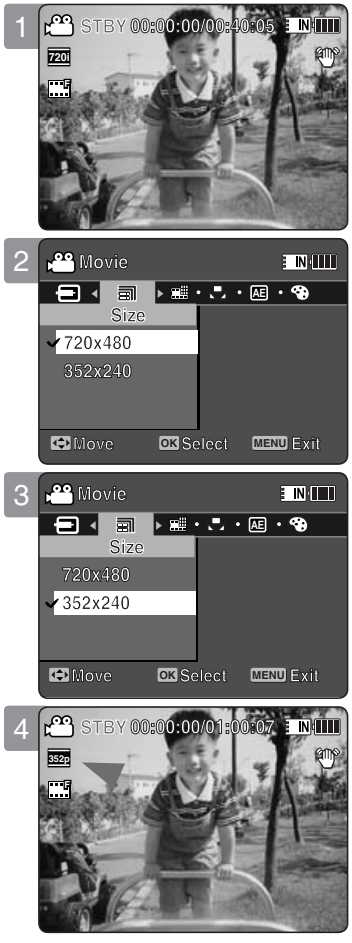
You can set the movie files size. The file storage capacity depends on the memory capacity and movie file size.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - ◆ The Movie Record screen appears.

2. **Press the [MENU] button.**
   Move the [Joystick] left / right to select <Size>.

3. **Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].**
   - ◆ Available options are: <720x480> / <352x240>

4. **Press the [MENU] button to exit the menu.**
   - ◆ The selected function icon is displayed.



[Notes]

- ✤ If <TV> is selected in <Record Mode>, the size is set to 720i only.
  If <PC> is selected in <Record Mode>, the size is set to 720p or 352p.
- ✤ Regarding detailed image capacity. ➥page 31.
- ✤ Higher resolution requires more memory space, which results in shorter maximum recording time.
- ✤ When the screen size is set to 352(352x240), it is played back in smaller size than 720(720x480) on PC.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Recording Options

Setting the Movie Quality

You can set the movie file's quality. The files storage capacity depends on the memory capacity and movie file quality.

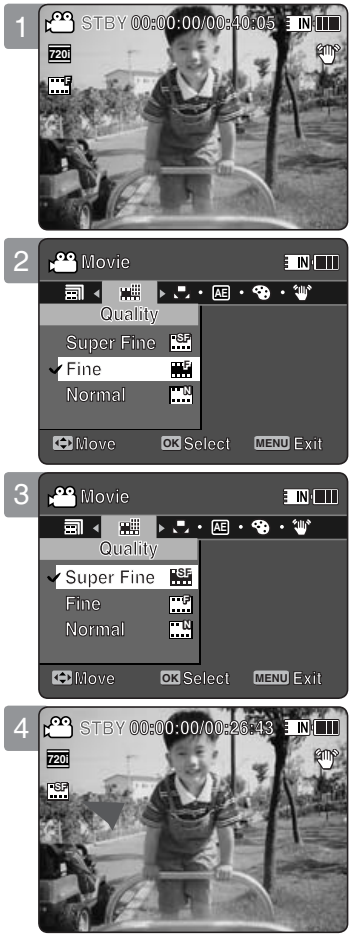
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <Quality>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ Available options are: <Super Fine> / <Fine> / <Normal>

4. Press the [MENU] button to exit the menu.
- ◆ The selected function icon is displayed.

[Notes]
- ✤ Regarding detailed image capacity. ➥page 31.
- ✤ You can record video files with size of 720i/Normal, 720p/Normal, 352p/Fine and 352p/Normal onto a Memory Card but the quality is not guaranteed.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.



Movie Mode : Setting the Recording Options

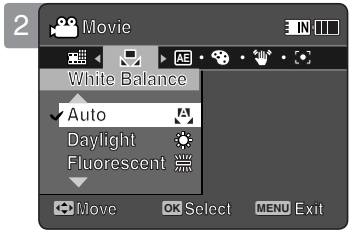
Setting the White Balance

The White Balance may vary depending on the lighting conditions.
The White Balance is used to preserve natural colors under different lighting conditions.

1. Press the [POWER] button to turn on the Sports Camcorder.

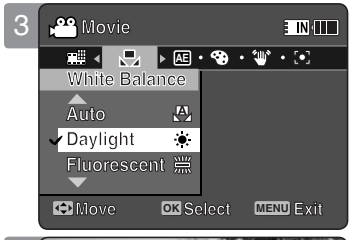
- The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <White Balance>.



3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- To set Custom, frame your Sports Camcorder on a white area (such as a wall), filling the LCD monitor with white color. Press the [Joystick(OK)] to set.
  Movies recorded after the Custom set will be affected by the setting.



Auto	Automatically sets according to the recording environment.
Daylight	Adjusts the color according to daylight/indoor, outdoor light
Fluorescent	Suitable for a fluorescent light environment.
Tungsten	Suitable for an incandescent light environment.
Custom	You can adjust the white balance as you wish based on the recording environment.

4. Press the [MENU] button to exit the menu.

- The selected function icon is displayed.
- If <Auto> is selected, no icon will be displayed.

[Notes]

- When recording outdoors, the <Auto> setting will allow you to achieve the best results.
- As the lighting conditions change, set the appropriate white balance before recording.
- The subject used for <Custom> should be white color. If not, the color balance will not be natural.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Recording Options

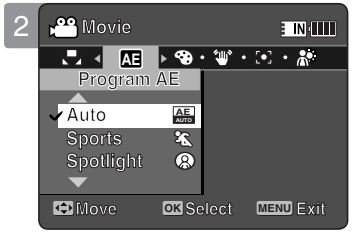
Setting the Program AE (Programmed Auto Exposure)

Program AE modes are preset automatic exposure modes based upon an internal computer program. It allows you to adjust the aperture setting to suit different conditions.

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <Program AE>.



3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Auto	Auto balances between the subject and background to get the best result. The shutter speed automatically varies from 1/60 to 1/250 per second depending on the scene.
Sports	For recording fast-moving people or objects. It is suitable for sports events and recording outside in the car.
Spotlight	Compensates for a subject that appears too bright under strong direct light such as spotlight. It is suitable for concerts and school performances.
Sand/Snow	Use when the light is very strong such as on the beach or in the snow.

4. Press the [MENU] button to exit the menu.

- The selected function icon is displayed.
- If <Auto> is selected, no icon will be displayed.

[Note]

- While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Recording Options

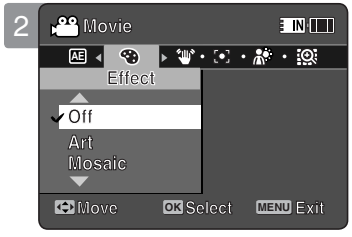
Setting the Effects

You can apply various digital effects to your recording.

1. Press the [POWER] button to turn on the Sports Camcorder.

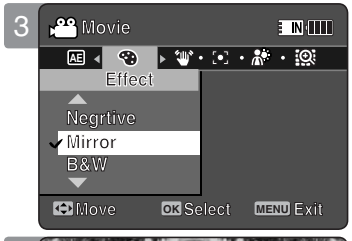
- The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <Effect>.



3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Off	Cancels the <Effect>.
Art	Adds artistic effects to your movie file.
Mosaic	A mosaic overlay appears on your movie file.
Sepia	The image is displayed in sepia color similar to that of an old photograph.
Negative	Reverses the colors, creating the look of a negative.
Mirror	This mode cuts the image in half using a Mirror effect.
B&W	Changes the images into Black and White.



4. Press the [MENU] button to exit the menu.

- The selected effect and icon are displayed.
- If <Off> is selected, no icon will be displayed.

[Note]

✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Recording Options

Setting the EIS (Electronic Image Stabilizer)

The Electrical Image Stabilizer is a function that compensates for hand shake and other movements while recording.
EIS provides a more stable image when:

- ◆ Recording with zoom
- ◆ Recording small objects
- ◆ Recording while walking or moving
- ◆ Recording through the window in a vehicle

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

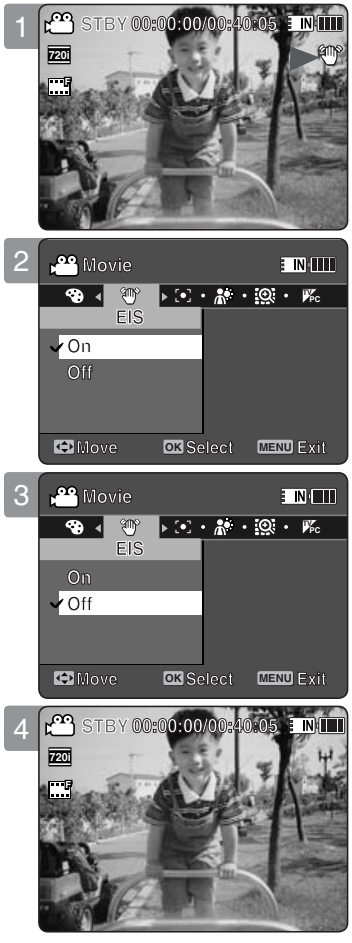
2. Press the [MENU] button.
Move the [Joystick] left / right to select <EIS>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ **<On>**: Enables EIS function.
- ◆ **<Off>**: Disables EIS function.

4. Press the [MENU] button to exit the menu.

- ◆ If you select <On>, the EIS icon ( ) is displayed.
- ◆ If you select <Off>, no icon is displayed.



[Note]

✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Recording Options

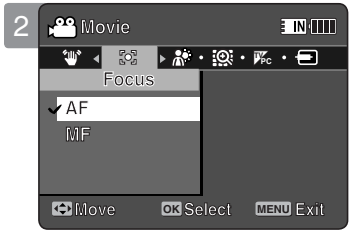
Setting the Focus

You can set the focus depending on the subject or environment. In most situations, it is best to use the AF(Auto Focus).

1. Press the [POWER] button to turn on the Sports Camcorder.

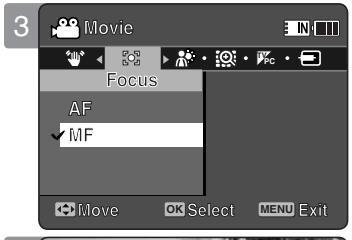
- The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <Focus>.



3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- **<AF>**: Set the focus automatically.
- **<MF>**: Set the focus manually.



4. Press the [MENU] button to exit the menu.

- The selected function icon is displayed.
- If you select <AF>, no icon is displayed.

Manual Focus <MF>

Adjust the focus using the [Joystick] up/down to zoom in or out manually.

- When a picture contains objects that are both close and far away from the Sports Camcorder.
- When a person is enveloped in fog or surrounded by snow.

[Notes]

- The focus is set to <AF> automatically when the Sports Camcorder is turned off.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Recording Options

Setting the BLC (Backlight Compensation)

The Backlight Compensation function helps to make the subject brighter when the subject is in front of a window or the subject is too dark to distinguish. You can use this function when using the Sports Camcorder in bright or snowy backgrounds.

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <BLC>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

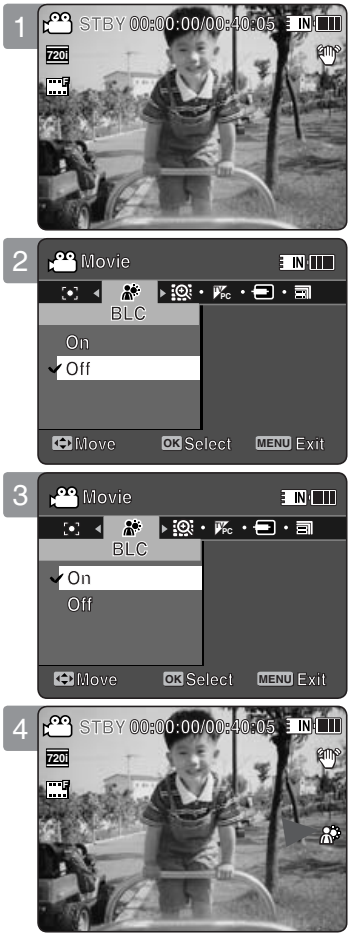
- **<On>**: Set the BLC function.
- **<Off>**: Cancel the BLC function.

4. Press the [MENU] button to exit the menu.

- The selected function ( ) icon is displayed.
- If you select <Off>, no icon is displayed.

[Notes]

- The BLC is set to <Off> when the Sports Camcorder is turned off.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.



Movie Mode : Setting the Recording Options

Setting the Digital Zoom

Zooming more than 10x is achieved digitally, up to 100X when combined with optical zoom. The Digital Zoom processes data to enlarge the center portion of the image to fill the frame. It may produce a less detailed and slightly grainy picture.

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <Digital Zoom>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

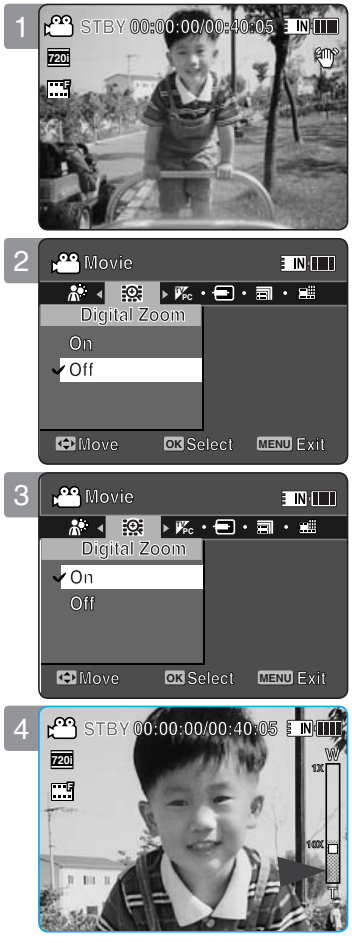
- **<On>**: Enables digital zoom. Attempts to zoom in more than 10x will automatically apply digital zooming. (up to 100x)
- **<Off>**: Disables digital zoom. Only optical zoom 10x will be supported for zooming

4. Press the [MENU] button to exit the menu.

- When using the digital zoom switch, a digital zoom indicator appears on the screen.

[Note]

- While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.



Movie Mode : Setting the Recording Options

Setting the Record Mode

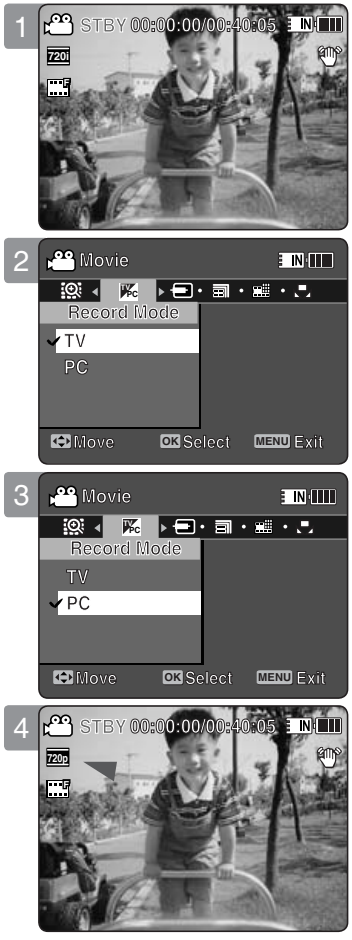
You can set the proper record mode before starting movie file recording.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <Record Mode>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<TV>**: The system generates clear images when played back on TV.
- ◆ **<PC>**: The system generates clear images when played back on PC.
- ◆ We recommend copying the file onto a PC or connecting the Sports Camcorder to a TV for a better playback picture.

4. Press the [MENU] button to exit the menu.
- ◆ If you select <TV>, <i> is displayed with size icon.
- ◆ If you select <PC>, <p> is displayed with size icon.



[Notes]
- ✤ If <TV> is selected as the Record Mode, the size is set to 720i only.
- ✤ If <PC> is selected as the Record Mode, the size is set to 720p or 352p.
- ✤ When the size is set to <352>, <PC> is automatically selected for movie files recording.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Recording Options

Setting the Line In/Out

You can record or play back the contents of the Sports Camcorder onto an external device and vice versa. ➥page 127~129

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

2. Press the [MENU] button.
Move the [Joystick] left / right to select <Line In/Out>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- **<In>**: Select this when recording the contents of an external device into the Sports Camcorder.
- **<Out>**: Select this when recording or playing back the contents of the Sports Camcorder onto an external device.

4. Press the [MENU] button to exit the menu.

- The Sports Camcorder is set to the selected setting.

[Note]

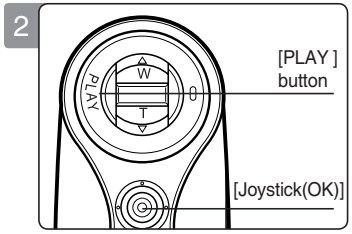
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Viewing Options

Deleting Movie Files

You can delete saved movie files.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Press the [PLAY] button or [Joystick(OK)].**
   - Switches to Movie Play mode.
   - Move to desired movie file, using the [Joystick].

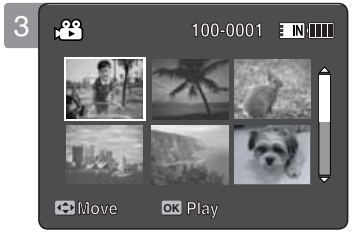


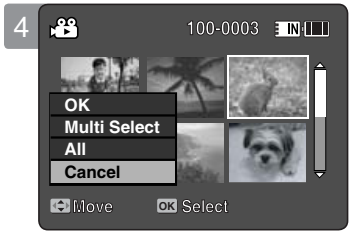
Deleting Movie Files in Full Screen-View

3. **Press the [DELETE] button on the LCD monitor.**
4. **Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].**
   - **<OK>**: Deletes the selected movie file.
   - **<Cancel>**: Cancels the deletion.

Deleting Movie Files in Multi-View

3. **Move the [W/T] switch to W (WIDE).**
   - The screen switches to multi-view.
4. **Press the [DELETE] button on the LCD monitor.**
5. **Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].**
   - **<OK>**: Deletes the selected movie file using the [Joystick(OK)].
   - **<Multi Select>**: Multiple movie files can be selected using the [Joystick(OK)].
     < ✔ > indicator appears on the selected files.
     Press the [PLAY] button to delete.
   - **<All>**: All movie files will be deleted.
   - **<Cancel>**: Cancels the deletion.





[Notes]

- While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.
- Locked files will not be deleted.

Movie Mode : Setting the Viewing Options

Setting the Play Mode

You can play all files continuously or play the selected file only. You can also set the repeat option for all files.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Press the [PLAY] button or [Joystick(OK)].
- ◆ Switches to Movie Play mode.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <Play Mode>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<Play One>**: The selected movie file will be played.
- ◆ **<Play All>**: All movie files will be played.
- ◆ **<Repeat One>**: The selected movie file will be played repeatedly.
- ◆ **<Repeat All>**: All movie files will be played repeatedly.

5. Press the [MENU] button to exit the menu.
Press the [PLAY] button.
- ◆ The selected option will be applied.

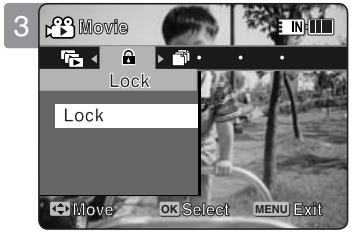
[Note]
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Viewing Options

Locking Movie Files

You can protect saved important movie files from accidental deletion. Protected files will not be deleted unless you release the protection or format the memory.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - ◆ The Movie Record screen appears.
2. **Press the [PLAY] button or [Joystick(OK)].**
   - ◆ Switches to Movie Play mode.
   - ◆ Move to desired movie file, using the [Joystick].

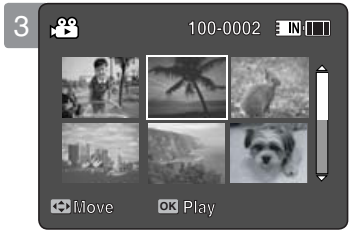


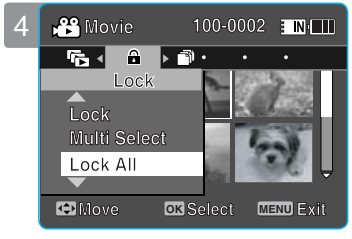
Locking Movie Files in Full Screen-View

3. **Press the [MENU] button.**
   Move the [Joystick] left / right to select <Lock>.
4. **Press the [Joystick(OK)] to lock.**
   - ◆ The selected movie file is locked.

Locking Movie Files in Multi-View

3. **Move the [W/T] switch to W (WIDE).**
   - ◆ The screen switches to multi-view.
4. **Press the [MENU] button.**
   Move the [Joystick] left / right to select <Lock>.
5. **Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].**
   - ◆ **<Lock>**: Locks the selected movie file using the [Joystick(OK)].
   - ◆ **<Multi Select>**: Multiple movie files can be selected using the [Joystick(OK)].
     < 🔒 > indicator appears on the selected files.
     Press the [PLAY] button to lock.
   - ◆ **<Lock All>**: All movie files are locked.
   - ◆ **<Unlock All>**: Unlocking all movie files.





[Notes]

- ✤ The < 🔒 > icon is displayed on the locked file.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

Movie Mode : Setting the Viewing Options

Copying Movie Files

You can copy saved files from the internal memory to a memory card and vice versa.

1. Insert a memory card in the memory card slot on Sports Camcorder.

2. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

3. Press the [PLAY] button or [Joystick(OK)].
- ◆ Switches to Movie Play mode.
- ◆ Move to desired movie file, using the [Joystick].

Copying Movie Files in Full Screen-View

4. Press the [MENU] button.
Move the [Joystick] left / right to select <Copy To>.

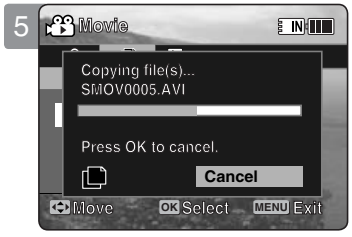
5. Press the [Joystick(OK)] to copy.
- ◆ Copies the selected movie file.

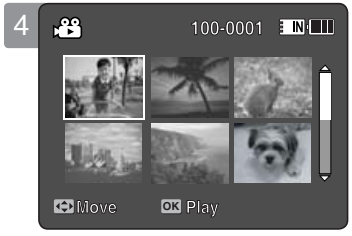
Copying Movie Files in Multi-View

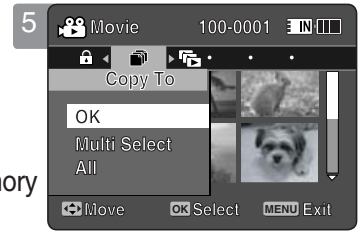
4. Move the [W/T] switch to W (WIDE).
- ◆ The screen switches to multi-view.

5. Press the [MENU] button.
Move the [Joystick] left / right to select <Copy To>.

6. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<OK>**: Copies the selected movie file.
- ◆ **<Multi Select>**: Multiple movie files can be selected using the [Joystick(OK)].
  < ✔ > indicator appears on the selected files.
  Press the [PLAY] button to copy.
- ◆ **<All>**: Cancel copying movie file.





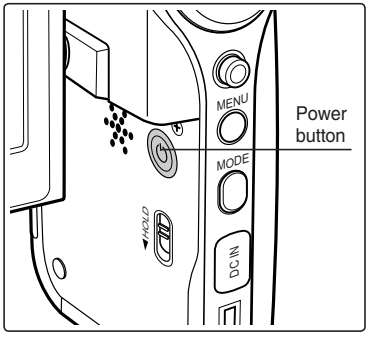


[Notes]
- ✤ The Sports Camcorder copies from the currently-used memory to another. If the internal memory was used, it copies to a memory card.
- ✤ If the memory card is not inserted, you cannot perform the <Copy To> function.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie Record mode.

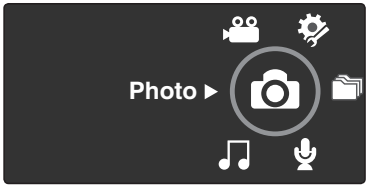
2 Photo Mode

How to set to Photo mode

1. **Press the [POWER] button to turn on the Sports Camcorder.**



2. **Set the *Photo* mode by pressing the [MODE] button.**



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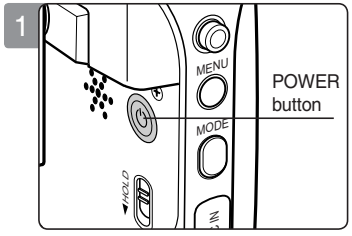
◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

Photo Mode : Capturing

Capturing Images

You can take still photo images.



1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.

- ◆ The Photo Capture screen appears.

3. Press the [Record / Stop] button to take a picture.

4. After capturing, press the [POWER] button to turn off the Sports Camcorder to prevent battery power consumption.

[Notes]

- ✤ If the battery is low, the flash will not operate automatically.
- ✤ In order to take pictures on the memory card, insert a memory card and then set the storage type to <External>. ➥page 97

Photo Mode : Capturing

Zooming In and Out

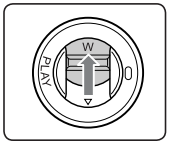
Zooming lets you change the size of the subject captured in a scene.
You can take advantage of the 10x optical electro motion zoom lens.

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

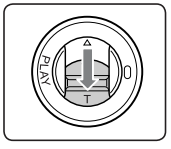
2. Set the *Photo* mode by pressing the [MODE] button.

- The Photo Capture screen appears.



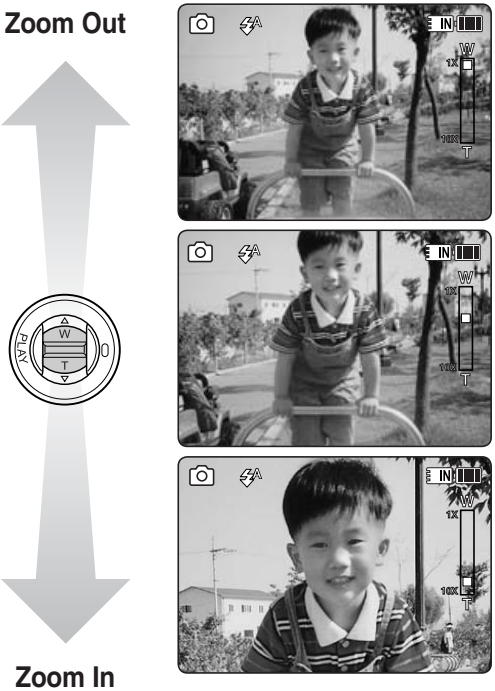
Slide the [W/T] switch up to zoom out.

- The shot subject's size is reduced, and you can take a picture as if you were far away from the subject.
- On the zoom indicator in the LCD screen, the arrow moves to W.
- The smallest rate of zoom out is the default rate (original resolution of the subject).



Slide the [W/T] switch down to zoom in.

- The subject is larger, and you can take a picture as if you were close to the subject.
- On the zoom indicator the arrow moves to T.
- The largest optical zoom ratio is 10x, which is the biggest among the basic zoom.



[Notes]

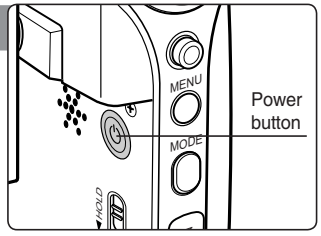
- Frequent use of zooming may result in higher battery power consumption.
- You can take advantage of 10x digital zoom as well as 10x optical zoom for a total of 100x zoom.
- Optical zoom preserves the image quality.

Photo Mode : Viewing

Viewing Photo Files on the LCD monitor

It is handy and practical to view pictures using the LCD monitor in locations such as in a car, indoors, or outdoors.

1



1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

2

2. Set the *Photo* mode by pressing the [MODE] button.

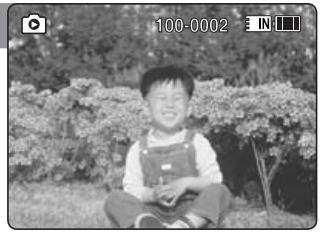
- The Photo Capture screen appears.

3

3. Press the [PLAY] button or [Joystick(OK)].

- Switches to Photo View mode.

4



4. Move the [Joystick] left / right to find the photo you want to view.

- Each movement of the joystick goes to the previous / next photo.

[Notes]

- ✤ If there is no file stored to view, the message <No Files...> appears.
- ✤ Moving the [Joystick] right at the last photo will move to the first photo.
- ✤ Moving the [Joystick] left at the first photo will move to the last photo.
- ✤ Moving the [Joystick] left / right for more than 1 second will start fast search.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Viewing

Viewing Multiple Photo Files

Using the [W/T] switch in Photo View mode, you can display multiple images on one LCD screen.

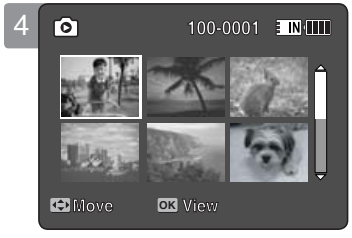
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [PLAY] button or [Joystick(OK)] and slide the [W/T] switch to W(WIDE).
- ◆ The Multi-view screen appears.

4. Move the [Joystick] to the left / right / up or down to find the photo file you want to View.

5. Press [PLAY] button or [Joystick(OK)] to view the photo file you want.
- ◆ The full screen is displayed.



[Notes]
- ✤ If there is no file stored to view, the message <No Files...> appears.
- ✤ Display time may vary depending on the picture size.
- ✤ The image edited or turned in Image Viewer program on your PC may not be displayed.

Photo Mode : Setting the Capturing Options

Setting the White Balance

The White Balance allows calibration of the picture for accurate color display in different lighting conditions. We recommended setting the white balance prior to any photo capturing.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <White Balance>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ To set Custom, frame your Sports Camcorder on a white area (such as a wall), filling the LCD monitor with white color. Press the [Joystick(OK)] to set.

Auto	Automatically sets according to the shooting environment.
Daylight	Adjusts the color according to daylight/indoor, outdoor light.
Fluorescent	Suitable for a fluorescent light environment.
Tungsten	Suitable for an incandescent light environment.
Custom	Adjusts the white balance based on the shooting environment.

5. Press the [MENU] button to exit the menu.
- ◆ The selected function icon is displayed.
- ◆ If <Auto> is selected, no icon will be displayed.

[Notes]
- ✤ When taking pictures outdoors, <Auto> setting will allow you to obtain the best results.
- ✤ As the lighting condition changes, set the appropriate white balance before taking a picture.
- ✤ The subject used for <Custom> should be white color. If not, the color balance will not be natural.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

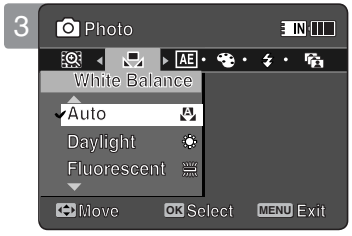


Photo Mode : Setting the Capturing Options

Setting the Program AE (Programmed Auto Exposure)

Program AE modes are preset automatic exposure modes based upon an internal computer program. Program AE allows you to adjust the aperture setting to suit different conditions.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <Program AE>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Auto	Auto balances between the subject and background to get the best result. The shutter speed automatically varies from 1/60 to 1/250 per second depending on the scene.
Sports	For recording fast-moving people or objects. It is suitable for sports events and recording outside in the car.
Spotlight	Compensates for a subject that appears too bright under strong direct light such as spotlight. It is suitable for concerts and school performances.
Sand/Snow	Use when the light is very strong such as on the beach or in the snow.

5. Press the [MENU] button to exit the menu.
- ◆ The selected function icon is displayed.
- ◆ If you select <Auto>, no icon is displayed.

[Note]
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Setting the Capturing Options

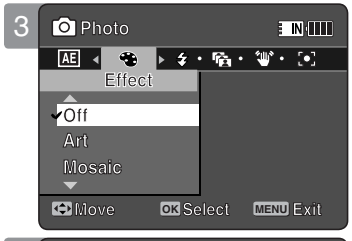
Setting the Effects

You can apply various digital effects to your photos.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <Effect>.



4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Off	Cancels the <Effect>.
Art	Adds artistic effects to your photo file.
Mosaic	A mosaic overlay appears on your photo file.
Sepia	The picture is displayed in sepia color similar to that of an old photograph.
Negative	Reverses the colors, creating the look of a negative.
Mirror	This mode cuts the picture in half using a mirror effect.
B&W	Changes the images into Black and White.

5. Press the [MENU] button to exit the menu.
- ◆ The selected effect is displayed.

[Note]
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Setting the Capturing Options

Setting the Flash

Flash is very useful not only for brighter subjects at night, but also in daytime when there is not enough lighting on the subject, such as in a shadow, indoors, and in backlight situations.

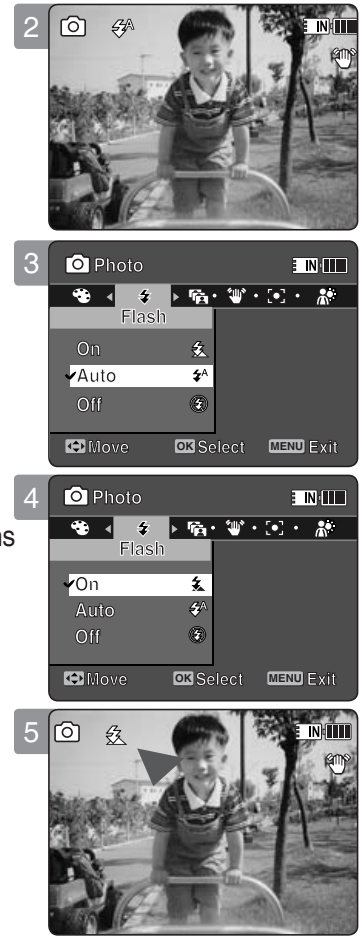
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <Flash>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<On>**: Flash will go on.
- ◆ **<Auto>**: Flash will be set automatically according to lighting conditions.
- ◆ **<Off>**: Flash will not come on. Select this option when you cannot use the flash in locations such as a museum.

5. Press the [MENU] button to exit the menu.
- ◆ The selected function icon is displayed.



[Notes]
- ✤ If the battery is low, the flash will not operate automatically.
- ✤ The Flash used with this unit is an LED, and is is not as effective as a normal strobe flash.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Setting the Capturing Options

Setting the Continuous Shot

You can take a series of pictures continuously with just one press of the shutter.

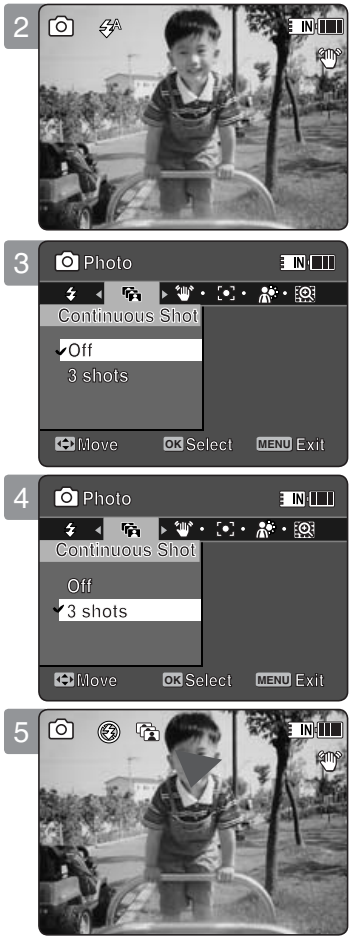
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <Continuous Shot>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<Off>**: Disables Continuous Shot and takes one photo at a time.
- ◆ **<3 shots>**: Enables Continuous shot and takes 3 photos in a row.

5. Press the [MENU] button to exit the menu.
- ◆ The selected function icon is displayed.
- ◆ If <Off> is selected, no icon will be displayed.



[Notes]
- ✤ When you set <Continuous Shot>, you cannot use the flash.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Setting the Capturing Options

Setting the EIS (Electronic Image Stabilizer)

The Electronic Image Stabilizer is a function that compensates for hand shake and other movements while taking pictures.
EIS provides more stable photo when:

- Capturing with zooming
- Capturing small objects
- Capturing while walking or moving
- Capturing through the window in moving vehicle

1. Press the [POWER] button to turn on the Sports Camcorder.
- The Movie Record screen appears.

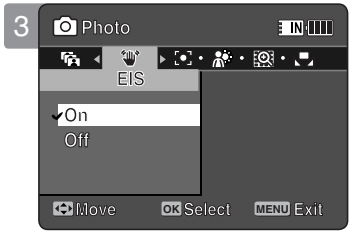
2. Set the *Photo* mode by pressing the [MODE] button.
- The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <EIS>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- **<On>**: Enables EIS function.
- **<Off>**: Disables EIS function.

5. Press the [MENU] button to exit the menu.
- If you select <On>, the EIS icon ( ) is displayed.
- If you select <Off>, no icon is displayed.

[Note]
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



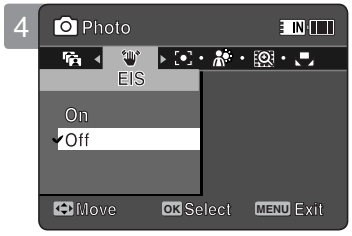


Photo Mode : Setting the Capturing Options

Setting the Focus

Select an appropriate focus method for the best results.

1. Press the [POWER] button to turn on the Sports Camcorder.
- The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left / right to select <Focus>.

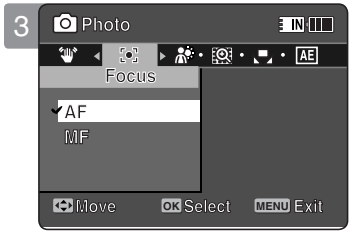
4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- **<AF>**: Set the focus automatically.
- **<MF>**: Set the focus manually.

5. Press the [MENU] button to exit the menu.
- If you select the <MF>, the icon ( ) is displayed.
- If you select the <AF>, no icon is displayed.

Manual Focus <MF>

Adjust the focus moving [Joystick] up/down to zoom in or out manually.
- When a picture has subjects close or distant to the Sports Camcorder
- When a person is enveloped in fog or surrounded by snow

[Note]
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



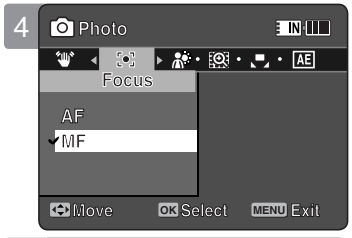


Photo Mode : Setting the Capturing Options

Setting the BLC (Backlight Compensation)

The Backlight Compensation function helps to make the subject brighter when the subject is in front of a window or the subject is too dark to distinguish. You can use this function when using the Sports Camcorder in the bright backgrounds including snow scenes.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left /right to select <BLC>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<On>**: Set the BLC function.
- ◆ **<Off>**: Cancel the BLC function.

5. Press the [MENU] button to exit the menu.
- ◆ The selected function icon ( ) is displayed.
- ◆ If you select <Off>, no icon is displayed.

[Notes]
- ✤ The BLC is set to <Off> when the Sports Camcorder is turned off.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

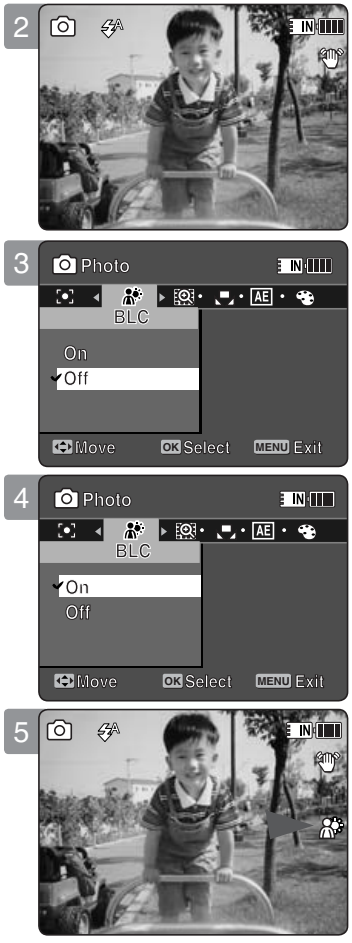


Photo Mode : Setting the Capturing Options

Setting the Digital Zoom

As well as the 10x optical zoom, this Sports Camcorder supports 10x digital zoom which produces a total of 100x zoom. Exceeding the optical zoom limit will automatically engage the digital zoom when available. Digital zoom may produce a grainy picture.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.
Move the [Joystick] left /right to select <Digital Zoom>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<On>**: Enables digital zoom. Attempts to zoom in more than 10x will automatically apply digital zooming.(up to 100x)
- ◆ **<Off>**: Disables digital zoom. Only optical zoom 10x will be supported for zooming

5. Press the [MENU] button to exit the menu.
- ◆ When using the digital zoom switch, a digital zoom indicator appears on the screen.

[Note]
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

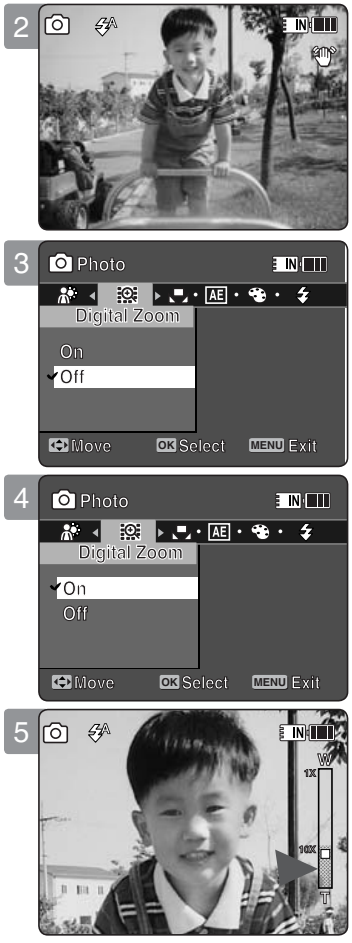
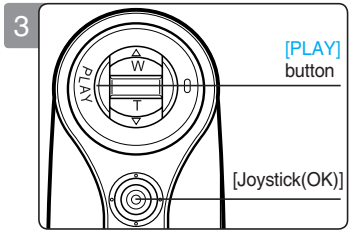


Photo Mode : Setting the Viewing Options

Deleting Photo Files

You can delete saved Photo files.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *Photo* mode by pressing the [MODE] button.**
   - The Photo Capture screen appears.
3. **Press the [PLAY] button or [Joystick(OK)].**
   - Switches to Photo View mode.
   - Move to desired photo file, using the [Joystick].

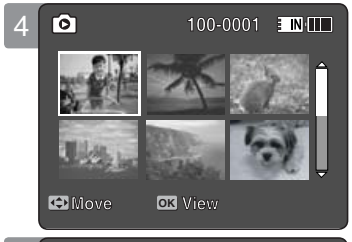


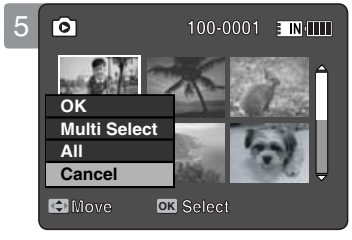
Deleting Photo Files in Full Screen-View

4. **Press the [DELETE] button on the LCD monitor.**
5. **Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].**
   - **<OK>**: Deletes the selected photo file using the [Joystick(OK)].
   - **<Cancel>**: Cancels the deletion.
6. **Press the [MENU] button to exit the menu.**

Deleting Photo Files in Multi-View

4. **Slide the [W/T] switch to W (WIDE).**
   - The screen switches to multi-view.
5. **Press the [DELETE] button on the LCD monitor.**
6. **Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].**
   - **<OK>**: Deletes the selected photo file.
   - **<Multi Select>**: Multiple photo files can be selected using the [Joystick(OK)]. < ✔ > indicator appears on the selected files. Press the [PLAY] button to delete.
   - **<All>**: All Photo files will be deleted.
   - **<Cancel>**: Cancels the deletion.





[Notes]

- Locked files will not be deleted.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Setting the Viewing Options

Setting the Slide show

You can set a slide show, and also set the interval and repetition options for the slide show.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- ◆ The Photo Capture screen appears.

3. Press the [PLAY] button or [Joystick(OK)].
- ◆ Switches to Photo View mode.

4. Press the [MENU] button.
Move the [Joystick] left / right to select <Slide>.

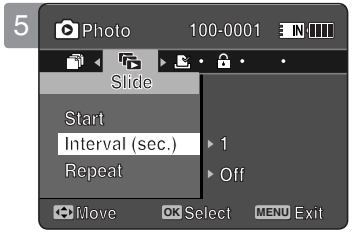
5. Select <Interval (sec.)> by moving the [Joystick] up / down and then press the [Joystick(OK)].

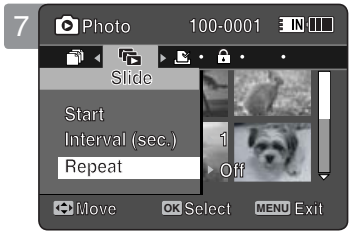
6. Set the interval by moving the [Joystick] up / down and then press the [Joystick(OK)].
- ◆ Interval range: 1 ~ 10 seconds.

7. Select <Repeat> by moving the [Joystick] up / down and then press the [Joystick(OK)].

8. Set the repeat option by moving the [Joystick] up / down and then press the [Joystick(OK)].
- ◆ **<Off>**: Sets not to repeat the slide show.
- ◆ **<On>**: Sets to repeat the slide show.

9. Select <Start> by moving the [Joystick] up / down and then press the [Joystick(OK)].
- ◆ Slide show starts. To stop the slide show, press the [Joystick(OK)].





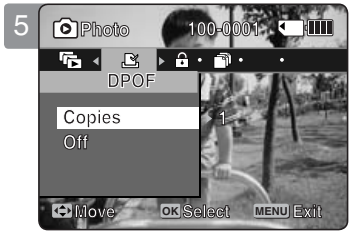
[Notes]
- ✤ The interval between photos may vary depending on the size of the photo.
- ✤ Slide show starts from the current photo displayed.
- ✤ Slide show cannot start from a damaged photo file. Damaged photos wiill be skipped during the slide show.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Setting the Viewing Options

Setting the DPOF (Digital Print Order Format) Function

You can automatically print a photo file recorded with a printer that supports DPOF.
Setting the DPOF is only available when using a memory card.

1. **Insert the memory card into the memory card slot on the Sports Camcorder.**
2. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
3. **Set the *Photo* mode by pressing the [MODE] button.**
   - The Photo Capture screen appears.
4. **Press the [PLAY] button.**
   - Switches to Photo View mode.
   - Move to desired photo file, using the [Joystick].

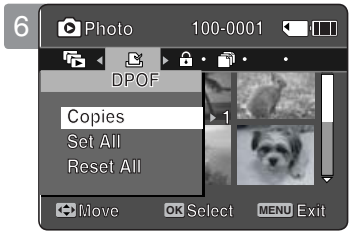


Setting the DPOF in Full Screen-View

5. **Press the [MENU] button.**
   Move the [Joystick] left / right to select <DPOF>.
6. **Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].**
   - **<Copies>**: Move the [Joystick] up / down to select the number of copies you want to print and press the [Joystick(OK)]. (copy range: 0 ~ 30)
   - **<Off>**: Cancels DPOF printing.
7. **Press the [MENU] button to exit the menu.**

Setting the DPOF in Multi-View

5. **Slide the [W/T] switch to W (WIDE).**
   - The screen switches to multi-view.
6. **Press the [MENU] button.**
   Move the [Joystick] left / right to select <DPOF>.
7. **Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].**
   - **<Copies>**: Move the [Joystick] up / down to select the number of copies you want to print and press the [Joystick(OK)]. (copy range: 0 ~ 30)
   - **<Set All>**: All photo files will be marked with DPOF printing.
   - **<Reset All>**: All photo files will be resetted.
8. **Press the [MENU] button to exit the menu.**



[Notes]

- < > icon is displayed on the photos with DPOF setup.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

Photo Mode : Setting the Viewing Options

Locking Photo Files

You can protect important saved photo files from accidental erasure. Protected files will not be deleted unless you release the protection or format the memory.

1. Press the [POWER] button to turn on the Sports Camcorder.
- The Movie Record screen appears.

2. Set the *Photo* mode by pressing the [MODE] button.
- The Photo Capture screen appears.

3. Press the [PLAY] button.
- Switches to Photo View mode.
- Move to desired photo file, using the [Joystick].

Locking Photo Files in Full Screen-View

4. Press the [MENU] button.
Move the [Joystick] left / right to select <Lock>.

5. Press the [Joystick(OK)].
- Locks the selected photo file.
- Press the [MENU] button once again to set unlock.

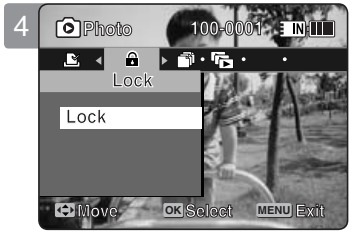
Locking Photo Files in Multi-View

4. Slide the [W/T] switch to W (WIDE).
- The screen switches to multi-view.

5. Press the [MENU] button.
Move the [Joystick] left / right to select <Lock>.

6. Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].
- **<Lock>**: Locks the selected photo file using the [Joystick(OK)].
- **<Multi Select>**: Multiple photo files can be selected using the [Joystick(OK)].
  < 🔒 > indicator appears on the selected files.
- **<Lock All>**: All photo files are locked.
- **<Unlock All>**: Unlocking all photo files.

[Notes]
- The < 🔒 > icon is displayed on the locked file.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



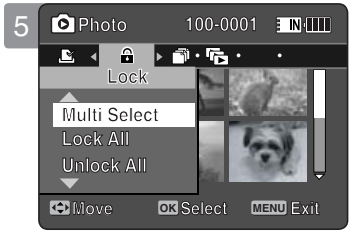


Photo Mode : Setting the Viewing Options

Copying Photo Files

You can copy saved files from the internal memory to a memory card and vice versa.

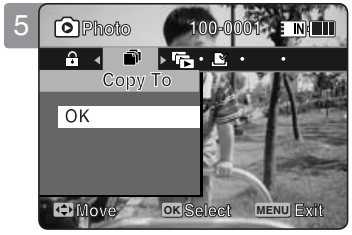
1. Insert the memory card into the memory card slot on the Sports Camcorder.
2. Press the [POWER] button to turn on the Sports Camcorder.
- The Movie Record screen appears.

3. Set the *Photo* mode by pressing the [MODE] button.
- The Photo Capture screen appears.

4. Press the [PLAY] button.
- Switches to Photo View mode.
- Move to desired photo file, using the [Joystick].

Copying Photo Files in Full Screen-View

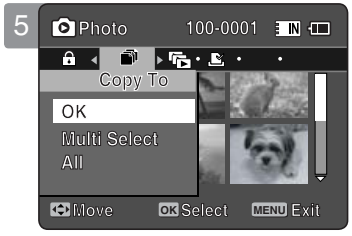
5. Press the [MENU] button.
Move the [Joystick] left / right to select <Copy To>.
6. Press the [Joystick(OK)].
- Copies the selected Photo file.



Copying Photo Files in Multi-View

5. Slide the [W/T] switch to W (WIDE).
- The screen switches to multi-view.

6. Press the [MENU] button.
Move the [Joystick] left / right to select <Copy To>.
7. Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].
- **<OK>**: Copies the selected Photo file.
- **<Multi Select>**: Multiple Photo files can be selected using the [Joystick(OK)]. < ✔ > indicator appears on the selected files. Press the [PLAY] button to copy.
- **<All>**: Cancel copying Photo file.



[Notes]
- The Sports Cam copies from the currently-used memory to another. If the internal memory was used, it copies to a memory card.
- If the memory card is not inserted, you cannot perform the <Copy To> function.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

3 MP3 Mode

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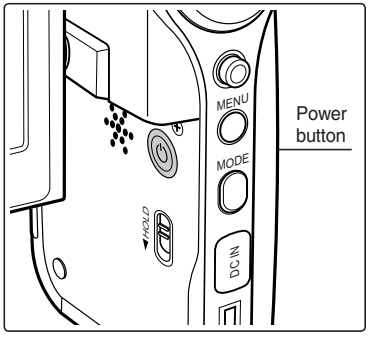
◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

How to set to MP3 mode

1. **Press the [POWER] button to turn on the Sports Camcorder.**

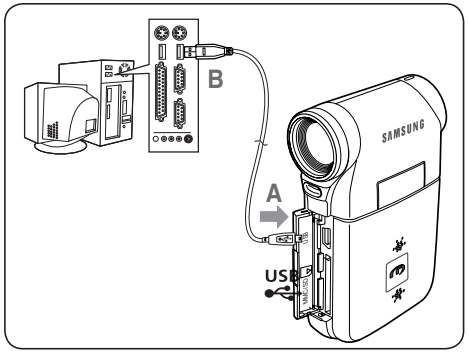


2. **Set the *MP3* mode by pressing the [MODE] button.**

MP3 Mode : Storing MP3 in the Sports Camcorder

Copying MP3 Files to the Sports Camcorder

You can copy mp3 files from a PC to the Sports Camcorder while connected to the PC with a USB cable.



Before your start!

- ◆ You can copy the MP3 files when <USB Mode> sets to <Mass Storage> ➥page 98
- ◆ <Mass Storage>is set basically in <USB Mode>.

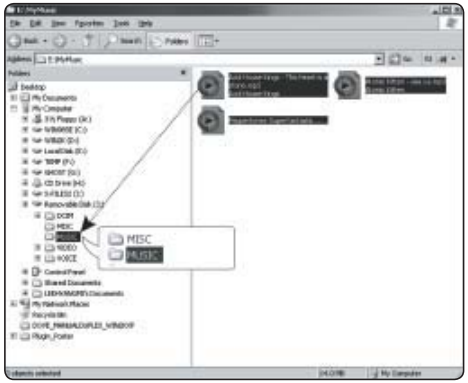
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Connect the Sports Camcorder to the PC using the USB cable provided.
- ◆ A - Connect the USB cable to the Sports Camcorder.
- ◆ B - Connect the other end of the USB cable to the PC.

3. Double-click the new removable drive to open.

4. Select the MUSIC folder and double-click to enter.

5. Drag and drop the MP3 file from your PC into the MUSIC folder.
- ◆ The maximum music memory capacity is 2000 MP3 files.



Disconnecting USB Connection

After completing the data transfer, you must disconnect the cable in the following way.

1. Select the removable disk icon and click the right mouse button to select 'Safely Remove Hardware'.
2. Select 'Stop' and disconnect the USB cable when the pop-up screen disappears.

[Warning]

✤ Copying and redistributing of MP3 files may violate the copyright law.

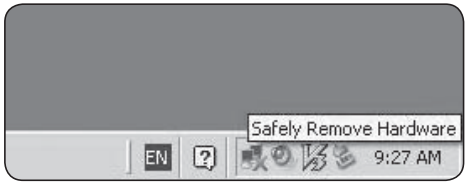
✤ You cannot create a new folder on your Sports Camcorder.

[Notes]

✤ You can copy a folder on your Sports Camcorder.

✤ To see MP3 file capacity with regards to the Sports Cam's memory capacity. ➥page 32.

✤ It is recommended to use an AC Power Adapter during the file transfer to avoid unintended power outage due to low battery power.

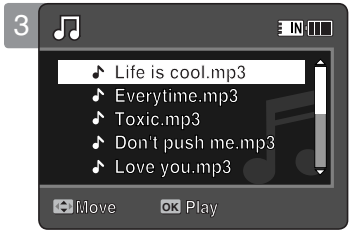


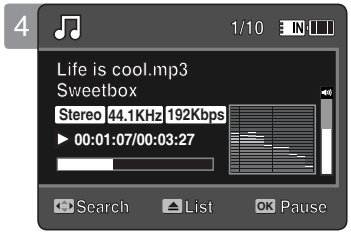
MP3 Mode : Playing

Playing MP3 Files

You can play back stored MP3 files.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *MP3* mode by pressing the [MODE] button.**
   - The MP3 playlist appears.
   - If there is no MP3 file stored, the message “No Files...” appears.
3. **Select a MP3 file to play by moving the [Joystick] up / down, and then press the [Joystick(OK)].**
4. **The selected MP3 file is played back.**
   - Each time you press the [PLAY] button or [Joystick(OK)], play or pause is selected repeatedly.
   - To adjust volume, move [Joystick] up / down.
     Volume indicator appears and disappears after few seconds.





Using the Joystick (left/right)

Move the [Joystick] left
- Within 2 seconds after starting playback - Previous file plays.
- In Pause/Stop mode - Previous file appears.
- 2 seconds after starting playback - Current file starts again.

Move the [Joystick] right
- During playback - The next file plays.
- In Pause/Stop mode - The next file appears.

Setting to Hold - [MP3/ External Camera Module HOLD] switch

If you slide the [MP3/ External Camera Module HOLD] switch down, all buttons except the Power button and Volume control are locked.
The [MP3/ External Camera Module HOLD] switch operates only in the MP3 mode or when connecting External Camera Module.

[Notes]
- The MP3 file with tag information will display the artist name. MP3 files with no tag information will leave the item blank.
- If a broken file name is displayed, try renaming it on a PC.
- When the language set is not the same as the MP3 file Tag information language, the Artist information may not display correctly.
- When the earphones, Audio/Video cable or External Camera Module cable is connected to the Sports Camcorder, the built-in speaker will turn off automatically.
- The Sports Camcorder only supports MP3 file format.
- Damaged or non-standard MP3 files may not display properly or fail to play back.
- Playback will fail to start if the first file is damaged.
- The title may not be displayed if the language is not supported or in Chinese.
- MP3 files with VBR setting will appear as VBR on the LCD monitor and its play time and recording time may differ from the displayed diagram.
- If a title of a track is too long, it may appear cropped on the LCD monitor.
- Supported bitrates for MP3 files is 8Kbps~320Kbps and VBR.

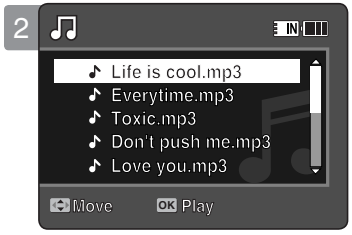
MP3 Mode : Setting the MP3 Play Options

Deleting MP3 Files

You can delete a selected MP3 file or group of MP3 files.

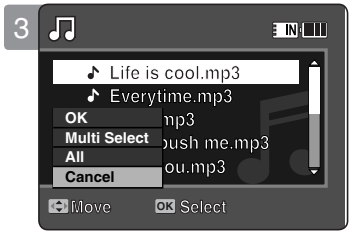
1. Press the [POWER] button to turn on the Sports Camcorder.
- The Movie Record screen appears.

2. Set the *MP3* mode by pressing the [MODE] button.
- The MP3 playlist appears.
- Move to desired MP3 file, using the [Joystick].



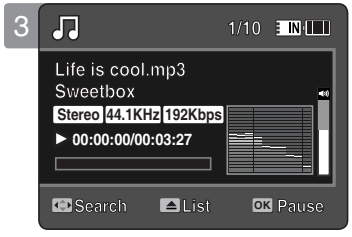
Deleting MP3 Files in MP3 playlist

3. Press the [DELETE] button on the LCD monitor in pause mode. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].
- **<OK>**: Deletes the selected MP3 file.
- **<Multi Select>**: Multiple MP3 files can be selected using the [Joystick(OK)].
  < ✔ > indicator appears on the selected files. Press the [PLAY] button.
- **<All>**: All MP3 files will be deleted.
- **<Cancel>**: Cancels the deletion.

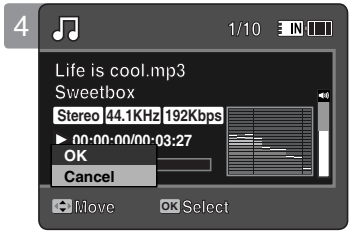


Deleting MP3 File in Full screen

3. Press the [PLAY] button or [Joystick(OK)].
- The selected MP3 file is played.



4. Press the [DELETE] button on the LCD monitor in pause mode. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].
- **<OK>**: Deletes the selected MP3 file.
- **<Cancel>**: Cancels the deletion.



[Notes]
- Locked files will not be deleted.
- You cannot access the menu during playback.

MP3 Mode : Setting the MP3 Play Options

Setting the Repeat Play

You can repeat a selected MP3 file or group of MP3 files, or play the MP3 files at random.

1. Press the [POWER] button to turn on the Sports Camcorder.
- The Movie Record screen appears.

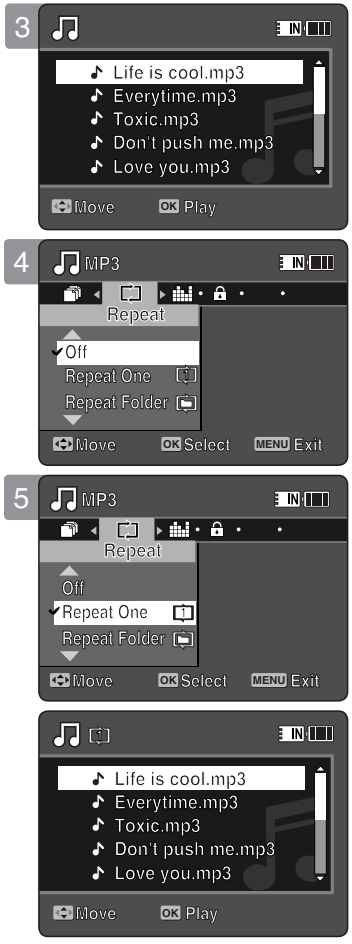
2. Set the *MP3* mode by pressing the [MODE] button.
- The MP3 playlist appears.

3. Press the [MENU] button in pause mode.
Move the [Joystick] left / right to select <Repeat>.

4. Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].
- **<Off>**: No repeat, plays each title once in the order from the selected MP3 file.
- **<Repeat One>**: One selected MP3 file will play repeatedly.
- **<Repeat Folder>**: All files in the folder will play repeatedly.
- **<Repeat All>**: All MP3 files will play through in order and start again from the beginning.
- **<Shuffle Folder>**: All files in the folder will play at random.
- **<Shuffle All>**:All MP3 files will play in random order once.

5. Press the [MENU] button to exit the menu.
- Move the MP3 file of the desired folder using the [Joystick].
- When the MP3 file plays back, the selected option will be applied.

[Notes]
- ✤ When the earphones, Audio/Video cable or External Camera Module cable is connected to the Sports Camcorder, the built-in speaker will not operate.
- ✤ You cannot access the menu during playback.



MP3 Mode : Setting the MP3 Play Options

Setting the Equalizer

You can choose an Equalizer mode for different types of music.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

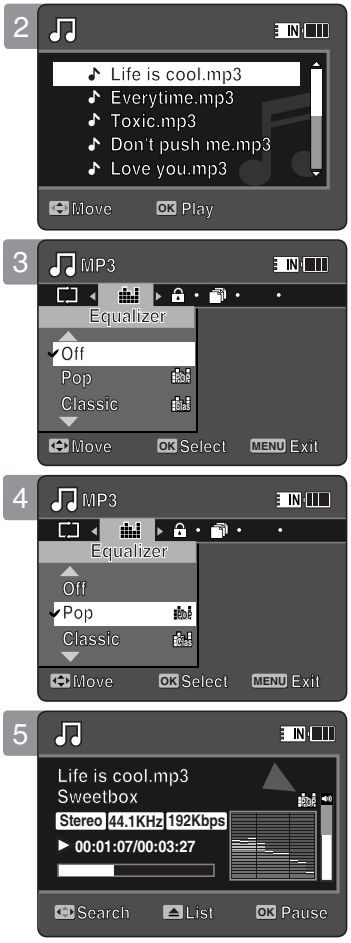
2. Set the *MP3* mode by pressing the [MODE] button.
- ◆ The MP3 playlist appears.

3. Press the [MENU] button in pause mode.
Move the [Joystick] left / right to select <Equalizer>.

4. Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].
- ◆ **<Off> / <Pop> / <Classic> / <Jazz>**

5. Press the [MENU] button to exit the menu.
- ◆ The selected option is applied.

[Note]
- ✤ You cannot access the menu during playback.

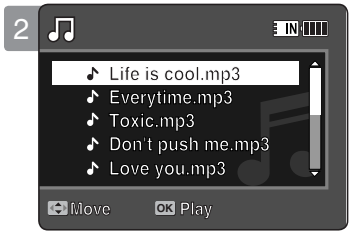


MP3 Mode : Setting the MP3 Play Options

Locking MP3 Files

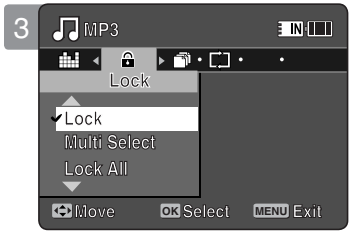
You can protect saved important MP3 files from accidental deletion. Protected files will not be deleted unless you release the protection or format the memory.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *MP3* mode by pressing the [MODE] button.**
   - The MP3 playlist appears.
   - Move to desired MP3 file, using the [Joystick].



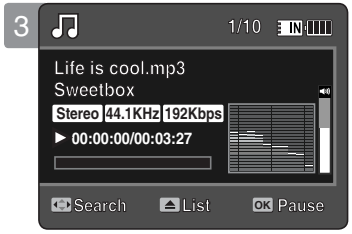
Locking MP3 Files in MP3 playlist

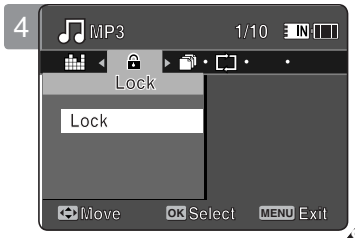
3. **Press the [MENU] button in pause mode.**
   Move the [Joystick] left / right to select <Lock>.
4. **Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].**
   - **<Lock>**: The selected MP3 file is locked.
   - **<Multi Select>**: Multiple MP3 files can be selected using the [Joystick(OK)].
     < 🔒 > indicator appears on the selected files.Press the [PLAY] button.
   - **<Lock All>**: All MP3 files are locked.
   - **<Unlock All>**: Unlocking all MP3 files.



Locking MP3 File in Full screen

3. **Press the [PLAY]button or [Joystick(OK)]**
   - The selected MP3 file is played.
4. **Press the [MENU] button in pause mode.**
   Move the [Joystick] left / right to select <Lock>.
5. **Press the [Joystick(OK)].**
   - The selected MP3 file is locked.





[Note]

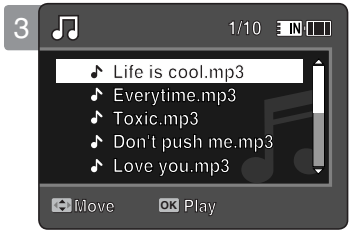
✤ You cannot access the menu during playback.

MP3 Mode : Setting the MP3 Play Options

Copying MP3 Files

You can copy saved files from the internal memory to the memory card and vice versa.

1. **Insert the memory card into the memory card slot on the Sports Camcorder.**
2. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
3. **Set the *MP3* mode by pressing the [MODE] button.**
   - The MP3 playlist appears.
   - Move to desired MP3 file, using the [Joystick].



Copying MP3 Files in MP3 playlist

4. **Press the [MENU] button in pause mode.**
   Move the [Joystick] left / right to select <Copy To>.
5. **Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].**
   - **<OK>**: Copy the selected MP3 file.
   - **<Multi Select>**: Multiple MP3 files can be selected using the [Joystick(OK)].
     < ✔ > indicator appears on the selected files. Press the [PLAY] button.
   - **<All>**: Cancel copying MP3 file.

Copying MP3 File in Full screen

4. **Press the [PLAY]button or [Joystick(OK)]**
   - The selected MP3 file is played.
5. **Press the [MENU] button in pause mode.**
   Move the [Joystick] left / right to select <Copy To>.
6. **Press the [Joystick (OK)].**
   - Copy the selected MP3 file.

[Notes]

- The Sports Camcorder copies from the currently-used memory to another. If the internal memory is being used, it copies to a memory card.
- If the memory card is not inserted, you cannot perform the <Copy To> function.
- You cannot access the menu during playback.

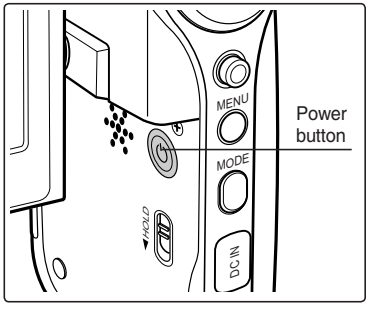
4 Voice Recorder Mode

Recording 84
Recording Voice Files 84
Playing 85
Playing Voice Files 85
Setting the Voice Play Options 86
Deleting Voice Files 86
Setting the Play Mode 87
Locking Voice Files 88
Copying Voice Files 89

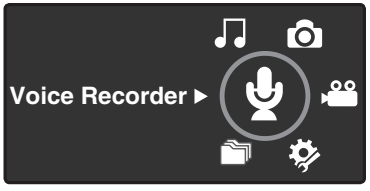
◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

How to set to Voice Recorder mode

1. **Press the [POWER] button to turn on the Sports Camcorder.**



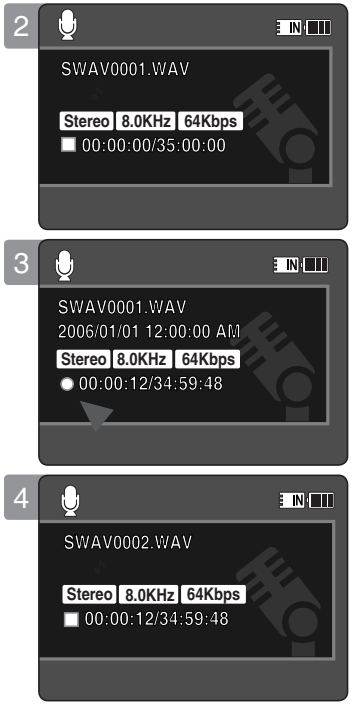
2. **Set the *Voice Recorder* mode by pressing the [MODE] button.**



Voice Recorder Mode : Recording

Recording Voice Files

The built-in microphone allows users to record voices without any additional devices.



1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the *Voice Recorder* mode by pressing the [MODE] button.

- ◆ The Voice Record screen appears.

3. Press the [Record / Stop] button to start recording.

- ◆ < ● > icon appears on the screen and starts recording.

4. To stop recording, press the [Record / Stop] button again.

[Notes]

- ✤ Recorded voice files are saved in a list automatically.
- ✤ During voice recording or in the Voice Record mode, the menu is not accessed.

Voice Recorder Mode : Playing

Playing Voice Files

You can play back recorded voice files using the built-in speaker or the earphones.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Voice Recorder* mode by pressing the [MODE] button.
- ◆ The Voice Record screen appears.

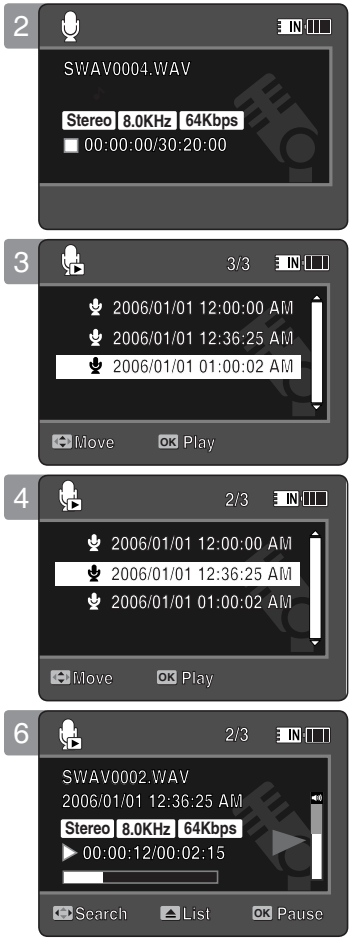
3. Press the [PLAY] button or [Joystick(OK)].
- ◆ The Voice Playlist screen appears.

4. Select a voice file to play by moving the [Joystick] up/down, and then press the [Joystick(OK)].

5. The selected voice file is played back.
- ◆ To pause playback, press the [Joystick(OK)].
- ◆ To search backward / forward, move the [Joystick] left / right.

6. To adjust the volume, move the [Joystick] up / down.
- ◆ Volume indicator appears and disappears after a few seconds.

[Notes]
- ✤ When the earphones, Audio/Video cable or External Camera Module cable is connected to the Sports Camcorder, the built-in speaker will not operate.
- ✤ You cannot access the menu during voice playback.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Voice Record mode.



Voice Recorder Mode : Setting the Voice Play Options

Deleting Voice Files

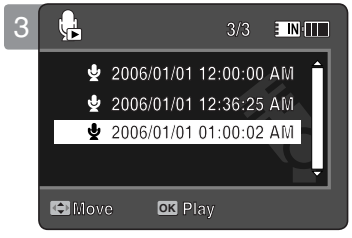
You can delete a selected voice file or group of voice files.

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

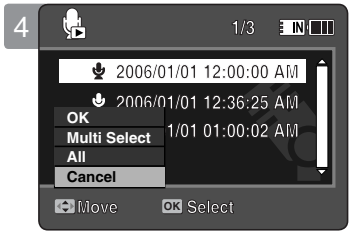
2. Set the *Voice Recorder* mode by pressing the [MODE] button.

- The Voice Record screen appears.



3. Press the [PLAY] button or [Joystick(OK)]

- The Voice Playlist screen appears.
- Move to desired voice file, using the [Joystick].



4. Press the [DELETE] button on the LCD monitor in pause mode. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].

- **<OK>**: Deletes the selected Voice file.
- **<Multi Select>**: Multiple Voice files can be selected using the [Joystick(OK)].
  < ✔ > indicator appears on the selected files. Press the [PLAY] button.
- **<All>**: All Voice files will be deleted.
- **<Cancel>**: Cancels the deletion.

[Notes]

- Locked files will not be deleted.
- You cannot access the menu during voice playback.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Voice Record mode.

Voice Recorder Mode : Setting the Voice Play Options

Setting the Play Mode

You can play all files continuously or play the selected file only. You can also set the repeat option.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *Voice Recorder* mode by pressing the [MODE] button.
- ◆ The Voice Record screen appears.

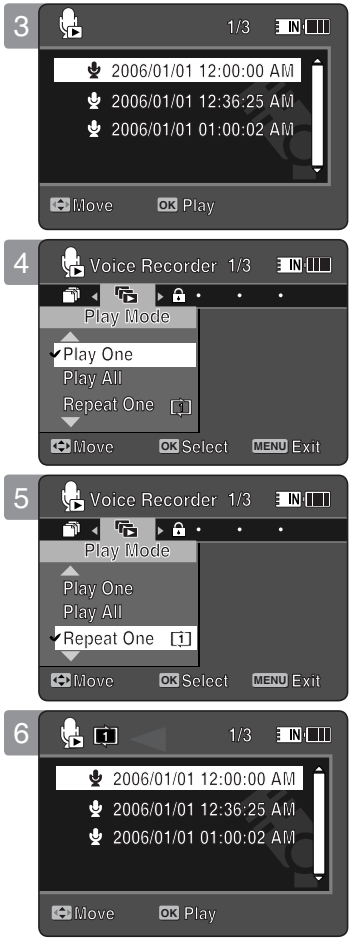
3. Press the [PLAY] button or [Joystick(OK)]
- ◆ Switches to the Voice Playlist screen.

4. Press the [MENU] button.
Move the [Joystick] left / right to select <Play Mode>.

5. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<Play One>**: The selected voice file will be played.
- ◆ **<Play All>**: All voice files will be played.
- ◆ **<Repeat One>**: The selected voice file will be played repeatedly.
- ◆ **<Repeat All>**: All voice files will be played repeatedly.

6. Press the [MENU] button to exit the menu.
- ◆ When you play back, the selected option will be applied.
- ◆ The selected icon is displayed on the repeat file.

[Notes]
- ✤ You cannot access the menu during voice playback.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Voice Record mode.



Voice Recorder Mode : Setting the Voice Play Options

Locking Voice Files

You can protect saved important voice files from accidental erasure. Protected files will not be deleted unless you release the protection or format the memory.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

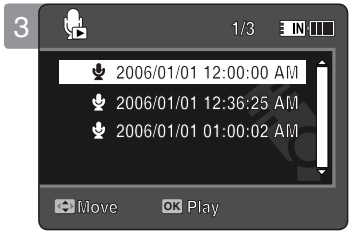
2. Set the *Voice Recorder* mode by pressing the [MODE] button.
- ◆ The Voice Record screen appears.

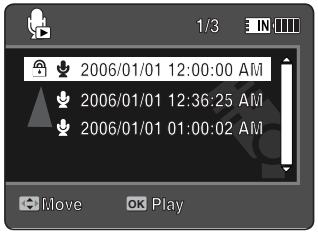
3. Press the [PLAY] button or [Joystick(OK)]
- ◆ Switches to the Voice Playlist screen.
- ◆ Move to desired voice file, using the Joystick.

4. Press the [MENU] button.
Move the [Joystick] left / right to select <Lock>.

5. Move the [Joystick] up / down to select an option, and then press the [joystick(OK)].
- ◆ **<Lock>**: The selected voice file is locked.
- ◆ **<Multi Select>**: Multiple voice files can be selected using the [Joystick(OK)].
  < 🔒 > indicator appears on the selected files. Press [PLAY] button
- ◆ **<Lock All>**: All voice files are locked.
- ◆ **<Unlock All>**: Unlocks all voice files.

[Notes]
- ✤ The < 🔒 > icon is displayed on the locked file.
- ✤ You cannot access the menu during voice playback.
- ✤ While the menu screen is displayed, pressing the [Record / Stop] button will move to Voice Record mode.





Voice Recorder Mode : Setting the Voice Play Options

Copying Voice Files

You can copy saved files from the internal memory to a memory card and vice-versa.

1. Insert the memory card into the memory card slot on the Sports Camcorder.

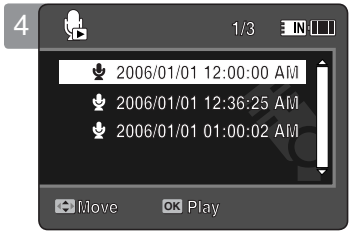
2. Press the [POWER] button to turn on the Sports Camcorder.
- The Movie Record screen appears.

3. Set the *Voice Recorder* mode by pressing the [MODE] button.
- The Voice Record screen appears.

4. Press the [PLAY] button or [Joystick(OK)].
- Switches to the Voice Playlist screen.
- Move to desired voice file, using the [Joystick].

5. Press the [MENU] button in pause mode.
Move the [Joystick] left / right to select <Copy To>.

6. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].
- **<OK>**: Copy the selected Voice file.
- **<Multi Select>**: Multiple Voice files can be selected using the [Joystick(OK)].
  < ✔ > indicator appears on the selected files. Press the [PLAY] button.
- **<All>**: All voice files will be copied.



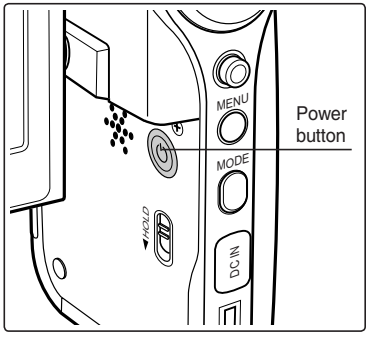
[Notes]
- The Sports Camcorder copies from the currently-used memory to another. If the internal memory was used, it copies to a memory card.
- If a memory card is not inserted, you cannot perform the <Copy To> function.
- You cannot access the menu during voice playback.
- While the menu screen is displayed, pressing the [Record / Stop] button will move to Voice Record mode.

5 Using File Browser

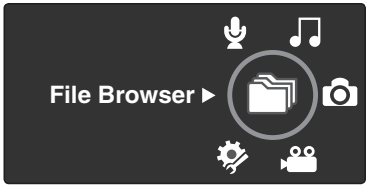
Viewing Files or Folders 91
Deleting Files or Folders 92
Locking Files 93
Copying Files or Folders 94
Viewing File Information 95

How to set to File Browser mode

1. **Press the [POWER] button to turn on the Sports Camcorder.**



2. **Set the *File Browser* mode by pressing the [MODE] button.**



◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

Using File Browser

Viewing Files or Folders

You can play back the stored file(AVI, JPEG, MP3, WAV) in Sports Camcorder.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

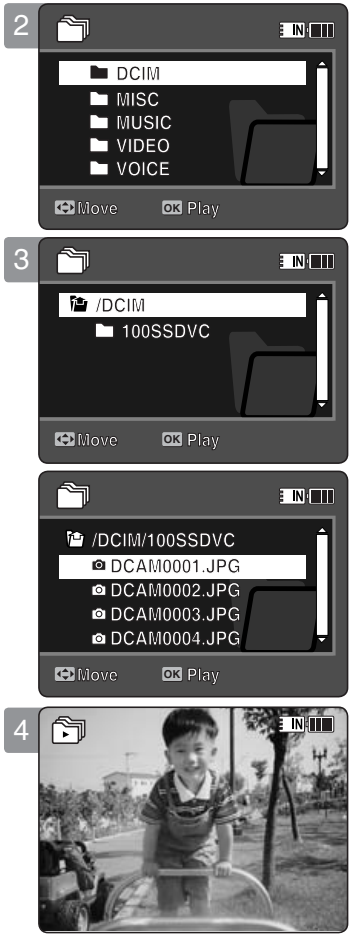
2. Set the *File Browser* mode by pressing the [MODE] button.

- ◆ The File Browser screen appears.

3. Select the desired folder or file by moving the [Joystick] up/down and then press the [Joystick(OK)].

- ◆ Perform these steps repeatedly until the file you want to view appears.

4. The selected file will be played back.



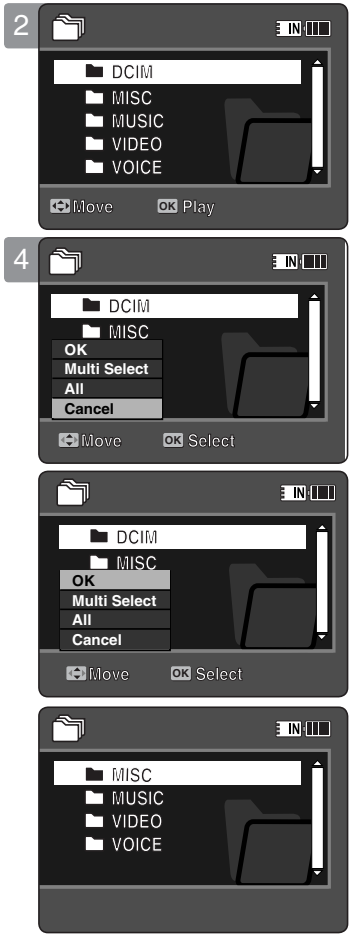
[Notes]

- ✤ If you slide the [W/T] switch to W(WIDE) in play mode, return to the file list screen.
- ✤ If you move the [Joystick] left, the previous folder screen appears.

Using File Browser

Deleting Files or Folders

You can delete the file(AVI, JPEG, MP3, WAV) or folders you recorded.



1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.

2. **Set the *File Browser* mode by pressing the [MODE] button.**
   - The File Browser screen appears.

3. **Select the desired file or folder by using the [Joystick].**
   - Move the [Joystick] up/down and press the [Joystick(OK)] repeatedly until the file or folder you want appears.

4. **Press the [DELETE] button on the LCD monitor. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].**
   - **<OK>**: The selected file or folder are is deleted.
   - **<Multi Select>**: Multiple files or folders will be selected using the [Joystick(OK)]. < ✔ > indicator appears on the selected files. Press the [PLAY] button.
   - **<All>**: All files or folders will be deleted.
   - **<Cancel>**: Cancels deleting files or folders.

[Notes]

- If you slide the [W/T] switch to W(WIDE) in play mode, it returns to the previous screen.
- Locked files or folders will not be deleted.
- If you move the [Joystick] left, the previous folder screen appears.

Using File Browser

Locking Files

You can lock the important files so they can not be deleted.

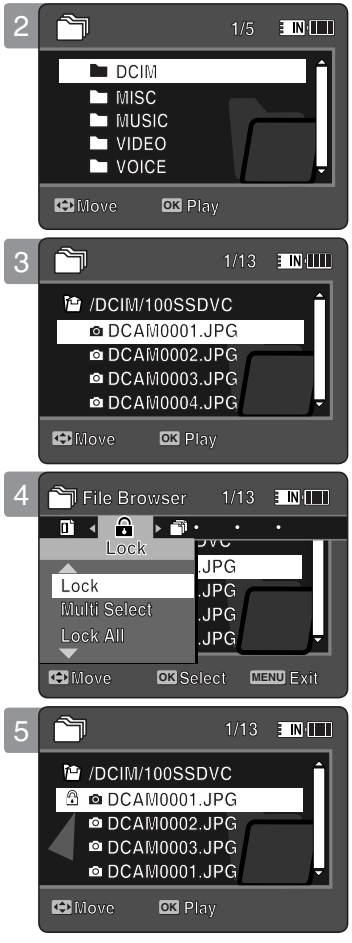
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *File Browser* mode by pressing the [MODE] button.
- ◆ The File Browser screen appears.

3. Select the desired file or folder by using the [Joystick].
- ◆ Move the [Joystick] up/down and press the [Joystick(OK)] repeatedly until the file you want appears.

4. Press the [MENU] button.
Move the [Joystick] left / right to select <Lock>.

5. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<Lock>**: The selected file is locked.
- ◆ **<Multi Select>**: Multiple files can be selected using the [Joystick(OK)].
  < 🔒 > indicator appears on the selected files. Press the [PLAY] button.
- ◆ **<Lock All>**: All files are locked.
- ◆ **<Unlock All>**: Unlocking all files.



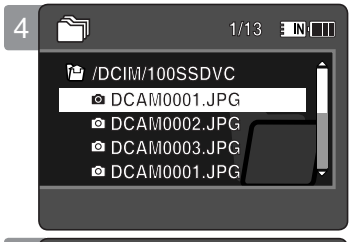
[Notes]
- ✤ You can't lock folders.
- ✤ The < 🔒 > icon is displayed when the file is locked.
- ✤ If you slide the [W/T] switch to W(WIDE) in play mode, return to the file list screen.
- ✤ If you move the [Joystick] left, the previous folder screen appears.

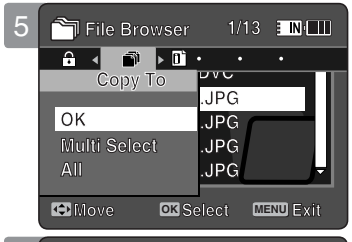
Using File Browser

Copying Files or Folders

You can copy the file or folder to the internal or external memory.

1. **Insert the memory card into the memory card slot on the Sports Camcorder.**
2. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
3. **Set the *File Browser* mode by pressing the [MODE] button.**
   - The File Browser screen appears.
4. **Select the desired file or folder by using the [Joystick].**
   - Move the [Joystick] up/down and press the [Joystick(OK)] repeatedly until the file or folder you want appears.
5. **Press the [MENU] button.**
   Move the [Joystick] left / right to select <Copy To>.
6. **Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].**
   - **<OK>**: Copy the selected file or folder.
   - **<Multi Select>**: Multiple files or folders can be selected using the [Joystick(OK)].
     < ✔ > indicator appears on the selected files or folders.
     Press the [PLAY] button.
   - **<All>**: All files or folders will be copied.





[Notes]

- The Sports Cam copies from the currently-used memory to another. If the internal memory was used, it copies to a memory card.
- If a memory card is not inserted, you cannot perform the <Copy To> function.
- If you slide the [W/T] switch to W(WIDE) in play mode, the Cam returns to the file list screen.
- If you move the [Joystick] left, the previous folder screen appears.

Using File Browser

Viewing File Information

You can see the file name, format, size and date.

1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *File Browser* mode by pressing the [MODE] button.
- ◆ The File Browser screen appears.

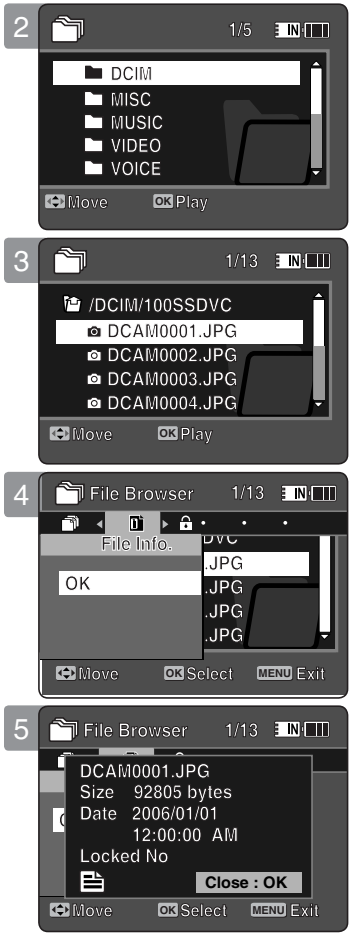
3. Select the desired file list by using the [Joystick].
Move the [Joystick] up or down to want to view file information.
- ◆ Move the [Joystick] up/down and press the [Joystick(OK)] repeatedly until the file list you want appears.

4. Press the [MENU] button.
Move the [Joystick] left / right to select <File Info.>.

5. Press the [Joystick(OK)] to view the file infomation.
- ◆ The screen with file name, size, date, locked state appears.

6. Press the [Joystick(OK)] to finish viewing file information.

[Notes]
- ✤ You cannot view folder information. You can only view file information.
- ✤ If you move the [Joystick] left, the previous folder screen appears.



6 Setting the Sports Camcorder

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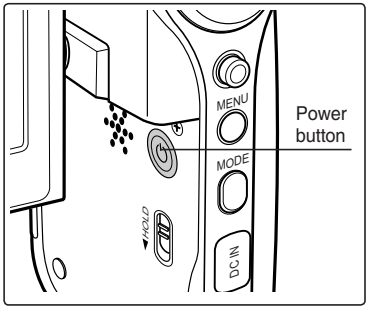
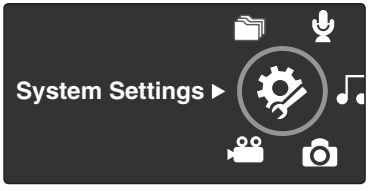
◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

How to set to System Settings mode

1. Press the [POWER] button to turn on the Sports Camcorder.



2. Set the *System Settings* mode by pressing the [MODE] button.



Setting the Sports Camcorder : Setting Memory

Selecting the Storage Type

You can set the storage to the internal memory or memory card (not supplied).

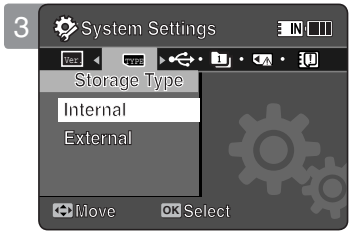
1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.

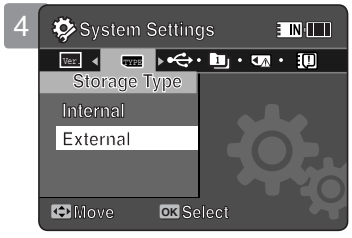
2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.

3. **Move the [Joystick] left / right to select <Storage Type>.**

4. **Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].**
   - **<Internal>**: Movie, photo, music and voice files are stored in the internal memory.
   - **<External>**: Movie, photo, music and voice files are stored in the external memory (SD/MMC).

5. **After you finish setting, move to the desired mode by pressing the [MODE] button.**





[Notes]

- If you insert a memory card when the Sports Camcorder is on, the “pop-up message” will prompt you automatically to select the storage type .
- If there is no memory card inserted, only the <internal> option will be available.
- System requires a small portion of memory space, actual storage capacity may differ from the printed memory capacity.
- The maximum recording time and image capacity is subject to change depending on the media used. ➥page 31, 32

Setting the Sports Camcorder : Setting USB Mode

Setting USB Mode

Connect your Sports Camcorder to your Computer via USB.

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

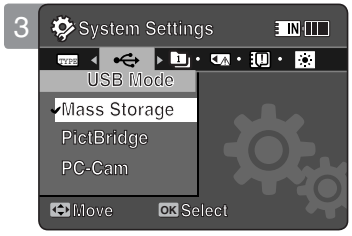
2. Set the *System Settings* mode by pressing the [MODE] button.

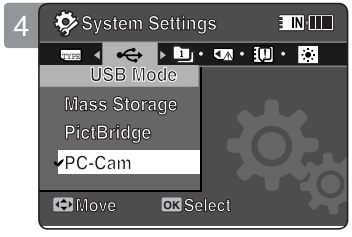
- The System Settings screen appears.

3. Move the [Joystick] left / right to select <USB Mode>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Mass Storage	Transferring files from the Sports Camcorder to your computer ➥page 115
PictBridge	By connecting the Sports Camcorder to printers with PictBridge support (sold separately), you can send images from the internal memory or external memory (SD/MMC) directly to the printer with a few simple operations. ➥page 116
PC-Cam	You can use the Sports Camcorder as a PC camera for video chatting, video conference and other PC camera applications. ➥page 117





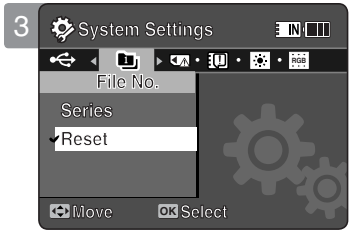
[Note]

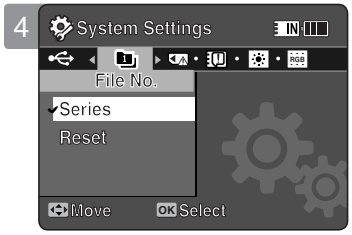
✤ Mass storage operates as a basic mode when connecting USB.

Setting the Sports Camcorder : Setting Memory

Setting the File No. Function

You can set the file numbers so that they reset each time the memory card is formatted, or so that they count up continuously.





1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.

3. **Move the [Joystick] left / right to select <File No.>.**

4. **Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].**
   - **<Series>**: Numbering is continuous between the memory cards, so that the first file number assigned on a new memory card is 1 more than the last file number assigned on the previous memory card.
   - **<Reset>**: When the storage memory is formatted, the file number goes back to its default value (100-0001).

5. **After you finish, move to the desired mode by pressing the [MODE] button.**

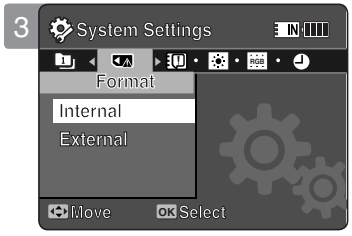
[Note]

✤ When you set <File No.> to <Series>, each file is assigned with a different number so as to avoid duplicating file names. It is convenient when you want to manage your files on a PC.

Setting the Sports Camcorder : Setting Memory

Formatting the Memory

You can format the internal memory or the memory card to erase all files.

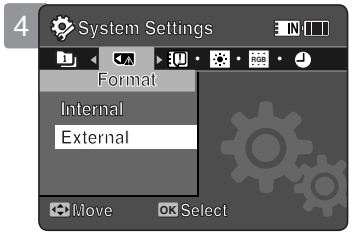


1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

2. Set the *System Settings* mode by pressing the [MODE] button.

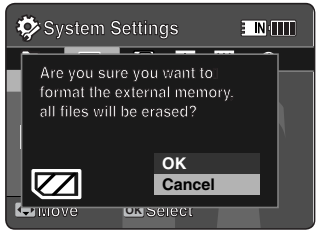
- The System Settings screen appears.



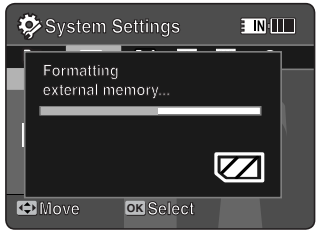
3. Move the [Joystick] left / right to select <Format>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- **<Internal>:** Format the internal memory.
- **<External>:** Format the external memory.
  When the [Joystick(OK)] is pressed, the pop-up message appears.
  Select <OK> or <Cancel> by moving the [Joystick] up / down and then press the [Joystick(OK)].



5. After you finish setting, move to the desired mode by pressing the [MODE] button.



[Warning]

- Previous information can not be restored after formatting.

[Notes]

- There is no guarantee on the operation of a memory card which has not been formatted on the Sports Camcorder. Make sure to format the memory card on the Sports Camcorder before using.
- If the memory card is not inserted, <External> option is not displayed.

Setting the Sports Camcorder : Setting Memory

Viewing Memory Space

You can check used memory space and total memory space of the Sports Camcorder.

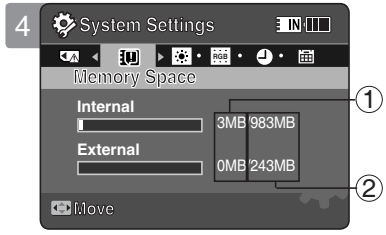
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

2. Set the *System Settings* mode by pressing the [MODE] button.
- ◆ The System Settings screen appears.

3. Move the [Joystick] left / right to select <Memory Space>.

4. The used memory space and total memory space are displayed.

5. After you viewing memory space, move to the desired mode by pressing the [MODE] button.



Memory Space

① Used memory capacity indicator
② Total memory capacity indicator

[Notes]
- ✤ System requires a small portion of memory space, actual storage capacity may differ from the printed memory capacity.
- ✤ If the memory card is not inserted, <External> option is not displayed
- ✤ The OSD indicators of this manual are based on the model SC-X210L.

Setting the Sports Camcorder : Adjusting the LCD monitor

Adjusting the LCD Brightness

You can adjust the brightness of the LCD monitor to compensate for ambient lighting conditions.

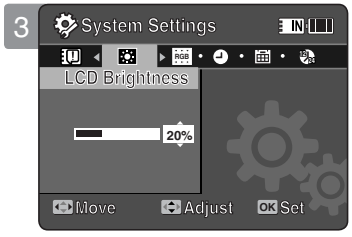
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

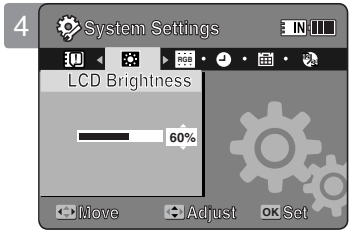
2. Set the *System Settings* mode by pressing the [MODE] button.
- ◆ The System Settings screen appears.

3. Move the [Joystick] left / right to select <LCD Brightness>.

4. Move the [Joystick] up / down to adjust the brightness, and then press the [Joystick(OK)].
- ◆ Moving the [Joystick] up will brighten the screen whereas moving it down will darken the screen.
- ◆ Brightness range: You can adjust the LCD Brightness from 0% to 100%.

5. After you finish setting, move to the desired mode by pressing the [MODE] button.





[Notes]
- ✤ A Brighter LCD screen setting consumes more battery power.
- ✤ Adjust the LCD brightness when the ambient lighting is too bright and the monitor is hard to see.
- ✤ LCD Brightness does not affect the brightness of images to be stored.

Setting the Sports Camcorder : Adjusting the LCD monitor

Adjusting the LCD Color

You can adjust the color of the LCD monitor depending on the situation.

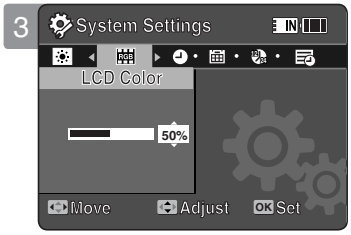
1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.

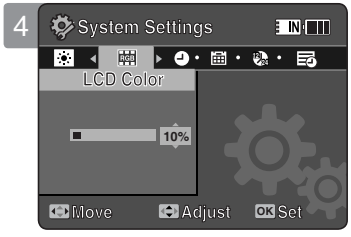
2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.

3. **Move the [Joystick] left / right to select <LCD Color>.**

4. **Move the [Joystick] up / down to adjust the LCD color, and then press the [Joystick(OK)].**
   - You can adjust the LCD Color from 0% to 100%.

5. **After you finish setting, move to the desired mode by pressing the [MODE] button.**





Setting the Sports Camcorder : Adjusting Date/Time

Setting Date&Time

You can set the date/time using this menu.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - ◆ The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - ◆ The System Settings screen appears.

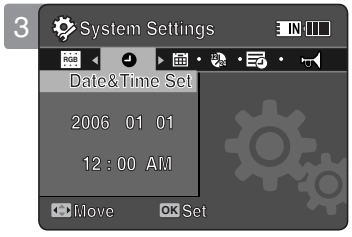
3. **Move the [Joystick] left / right to select <Date&Time Set> and then press the [Joystick(OK)].**

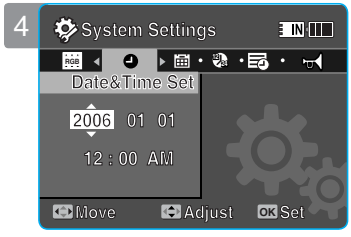
4. **Set the desired value by moving the [Joystick] up / down.**

5. **Move to the next item by moving the [Joystick] left / right, and then set values by moving the [Joystick] up / down.**
   - ◆ Items are displayed in the order of the date format.
   - ◆ By default, it appears in the order of Year, Month, Date, Hour, Minute and AM/PM.

6. **After setting the last item, press the [Joystick(OK)] to finish the setting.**

7. **After you finish setting, move to the desired mode by pressing the [MODE] button.**





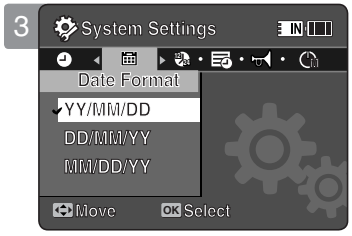
[Notes]

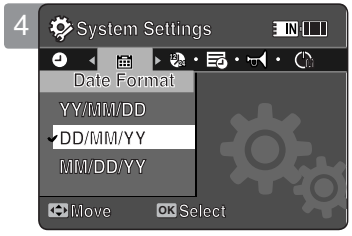
- ✤ See page 107 to set the Date/Time to display on the LCD.
- ✤ You can set the year up to 2037.

Setting the Sports Camcorder : Adjusting Date/Time

Setting Date Format

You can select the date format to display.





1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.

3. **Move the [Joystick] left / right to select <Date Format>.**

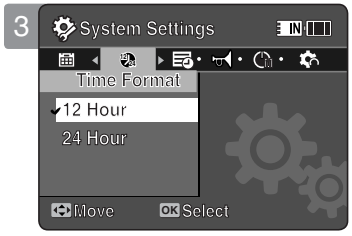
4. **Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].**
   - **<YY/MM/DD>**: The date is displayed in the order of Year / Month / Date.
   - **<DD/MM/YY>**: The date is displayed in the order of Date / Month / Year.
   - **<MM/DD/YY>**: The date is displayed in the order of Month / Date / Year.

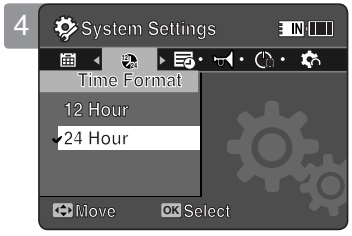
5. **After you finish setting, move to the desired mode by pressing the [MODE] button.**

Setting the Sports Camcorder : Adjusting Date/Time

Setting Time Format

You can select the time format to display.





1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.

3. **Move the [Joystick] left / right to select <Time Format>.**

4. **Move the [Joystick] up / down to select an option, and then press the [joystick(OK)].**
   - **<12 Hour>:** The time is displayed as the unit of 12 hours.
   - **<24 Hour>:** The time is displayed as the unit of 24 hours.

5. **After you finish setting, move to the desired mode by pressing the [MODE] button.**

Setting the Sports Camcorder : Adjusting Date/Time

Setting Date/Time Display

You can set to display date and time on the LCD monitor.

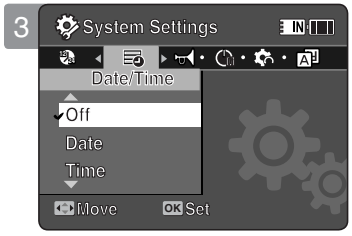
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

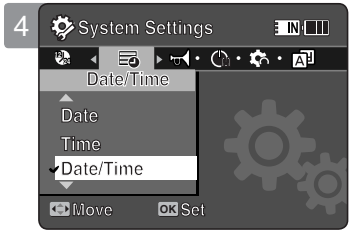
2. Set the *System Settings* mode by pressing the [MODE] button.
- ◆ The System Settings screen appears.

3. Move the [Joystick] left / right to select <Date/Time>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<Off>**: Date and Time are not displayed.
- ◆ **<Date>**: The date is displayed.
- ◆ **<Time>**: The time is displayed.
- ◆ **<Date/Time>**: The date and time are displayed.

5. After you finish setting, move to the desired mode by pressing the [MODE] button.
- ◆ The selected Date/Time is displayed in Movie Record/Play or Photo Capture mode.





Setting the Sports Camcorder : Setting the System Settings

Setting the Beep Sound

You can set the beep sound to on/off. When on, a beep will sound every time a button is pressed.

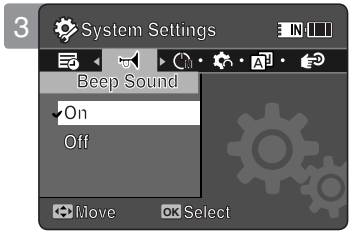
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

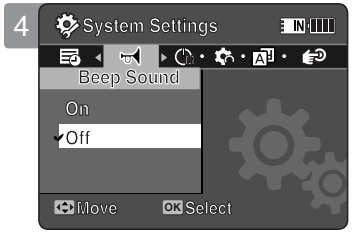
2. Set the *System Settings* mode by pressing the [MODE] button.
- ◆ The System Settings screen appears.

3. Move the [Joystick] left / right to select <Beep Sound>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<On>**: Turn the beep sound on.
- ◆ **<Off>**: Turn the beep sound off.

5. After you finish setting, move to the desired mode by pressing the [MODE] button.





[Note]
- ✤ When the earphones, Audio / Video cable or External Camera Module is connected to the Sports Camcorder, the <Beep Sound> function will not operate.

Setting the Sports Camcorder : Setting the System Settings

Setting Start-up Mode

You can select the starting mode displayed when you turn the Sports Camcorder on.

1. Press the [POWER] button to turn on the Sports Camcorder.

- The Movie Record screen appears.

2. Set the *System Settings* mode by pressing the [MODE] button.

- The System Settings screen appears.

3. Move the [Joystick] left / right to select <Start-up>.

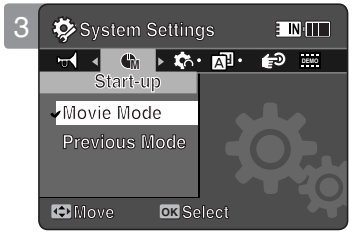
4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

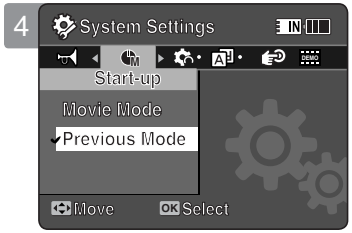
- **Movie Mode:** The Sports Camcorder starts up in the Movie Mode.
- **Previous Mode:** The Sports Camcorder starts up in the mode you used last.

5. After you finish setting, move to the desired mode by pressing the [MODE] button.

[Note]

- Make sure that the start-up mode is set to the selected mode when turning on the Sports Camcorder again.

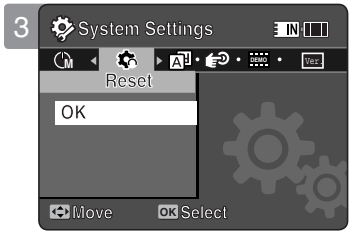




Setting the Sports Camcorder : Setting the System Settings

Resetting the Sports Camcorder

You can reset the Sports Camcorder to the default (factory) settings.



1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - ◆ The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - ◆ The System Settings screen appears.

3. **Move the [Joystick] left / right to select <Reset> and then press the [Joystick(OK)].**
   - ◆ The Sports Camcorder will be initialized to the default settings.

[Warning]

✤ If you reset the Sports Camcorder, all functions you set are re-initialized to the default (factory) settings.

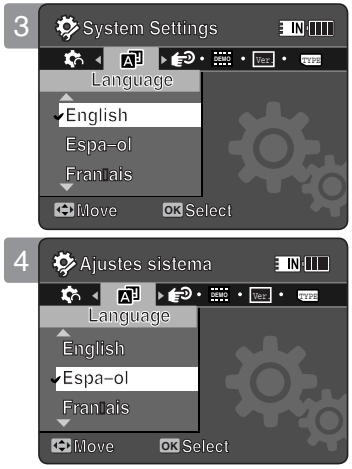
[Note]

✤ After resetting the Sports Camcorder, set <Date&Time Set>. ➥page 104

Setting the Sports Camcorder : Setting the System Settings

Selecting Language

You can select the desired language of the Sports Camcorder.



1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - ◆ The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - ◆ The System Settings screen appears.

3. **Move the [Joystick] left / right to select <Language>.**

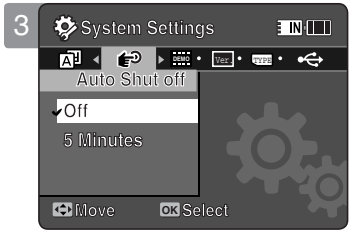
4. **Move the [Joystick] up / down to select the desired language, and then press the [Joystick(OK)].**
   - ◆ English / Español / Français / Português / Deutsch / Italiano / Nederlands / Polski / Русский / 한국어 / 中文 / Iran / Arab / Magyar / ไทย / Українська / Svenska

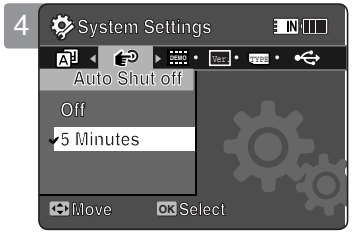
5. **After you finish setting, move to the desired mode by pressing the [MODE] button.**

Setting the Sports Camcorder : Setting the System Settings

Setting the Auto Shut off

To save battery power, you can set the <Auto Shut off> function which turns off the Sports Camcorder if there is no operation for a certain period of time.





1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.

3. **Move the [Joystick] left / right to select <Auto Shut off>.**

4. **Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].**
   - **<Off>**: Cancels the <Auto Shut off> function.
   - **<5 Minutes>**: Automatically turns off after 5 minutes.

5. **After you finish setting, move to the desired mode by pressing the [MODE] button.**

[Notes]

- The <Auto Shut off> will not function when you connect the AC Power Adapter to the Sports Camcorder. The <Auto Shut off> functions when the Battery Pack is the only power source.
- <Auto Shut off> will only function when you set this function in System Settings mode.
- Press the [POWER] button to revive the Sports Camcorder.

Setting the Sports Camcorder : Setting the System Settings

Setting the Demonstration Function

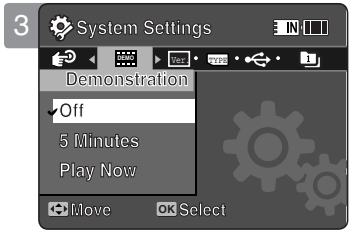
The Demonstration function will allow you to view all the functions that the Sports Camcorder supports.

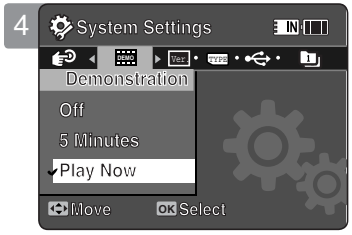
1. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

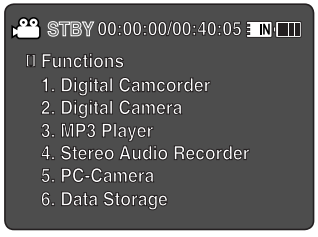
2. Set the *System Settings* mode by pressing the [MODE] button.
- ◆ The System Settings screen appears.

3. Move the [Joystick] left / right to select <Demonstration>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
- ◆ **<Off>:** Cancels the Demonstration function.
- ◆ **<5 Minutes>:** Starts the Demonstration function in 5 minutes.
- ◆ **<Play Now>:** Starts the Demonstration function now.







[Note]
- ✤ If you set the Demonstration function, it operates only in Video Record mode.

Setting the Sports Camcorder : Setting the System Settings

Viewing Version Information

You can see the firmware version information.

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - ◆ The Movie Record screen appears.

2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - ◆ The System Settings screen appears.

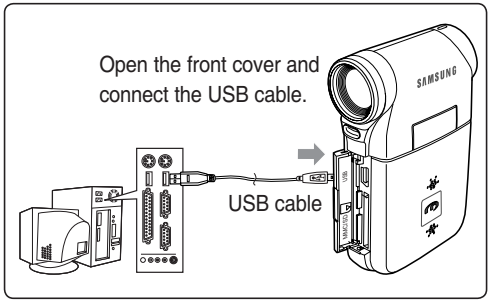
3. **Move the [Joystick] left / right to select <Version Info>.**
   - ◆ The firmware version of the Sports Camcorder is displayed.

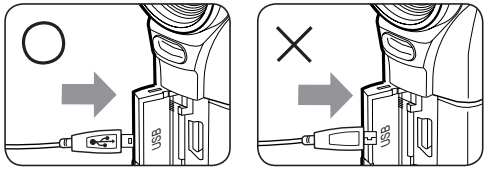
4. **After you view the version information, move to the desired mode by pressing the [MODE] button.**

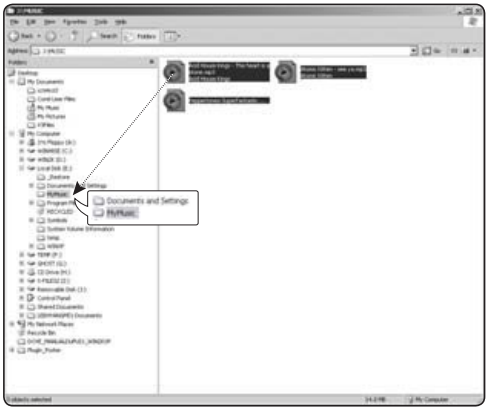
Setting the Sports Camcorder : Using USB Mode

Transferring files to a computer

You can use transfer photo and video files to your PC.







1. Turn on your PC.

2. Press the [POWER] button to turn on the Sports Camcorder.
- ◆ The Movie Record screen appears.

3. Connect the Sports Camcorder to your PC with the USB cable.
- ◆ Mass storage for transferring files runs as the default mode when connecting with the USB.

4. Copy the desired file from the Sports Camcorder to your PC.

5. When finished, disconnect the USB cable.

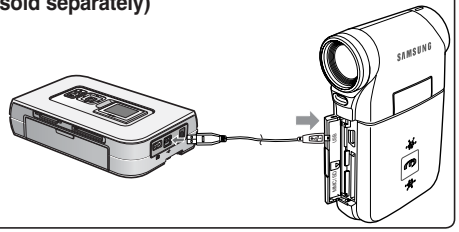
[Notes]
- ✤ Disconnecting the USB cable while the data transfer will stop the data transfer and might damage the data stored.
- ✤ Multiple USB devices connected to a PC or using USB hubs may cause communication / installation errors with the Sports Camcorder.
- ✤ Mass storage runs as the default mode when connecting with the USB.Reset USB mode to use the Pict-bridge function or PC-Cam function. ➥page 98

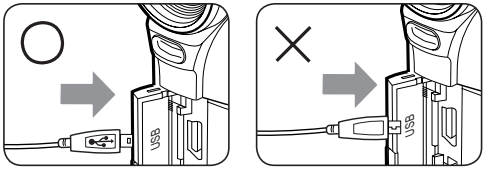
Setting the Sports Camcorder : Using USB Mode

Printing with PictBridge

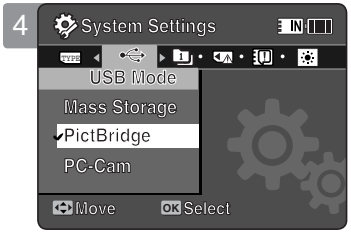
With the provided USB cable and a PictBridge-supporting printer, you can print your photo images directly without connecting to a PC.

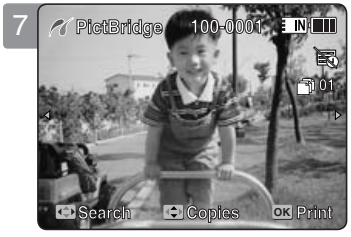
PictBridge Supporting Printer (sold separately)





1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.
3. **Move the [Joystick] left / right to select <USB Mode>.**
4. **Move the [Joystick] up / down to select <PictBridge> and then press the [Joystick(OK)].**
5. **Connect the Sports Camcorder and the PictBridge supporting printer with a USB cable.**
6. **Move the [Joystick] left/right to select the file you want to print.**
7. **Move the [Joystick] up/down to set the number of copies.**
   - Range of possibilities: 1 ~ 30
8. **Press the [Joystick(OK)] to begin printing.**
9. **When finished, disconnect the USB cable.**





[Warning]

- This function works only with printers that support PictBridge.

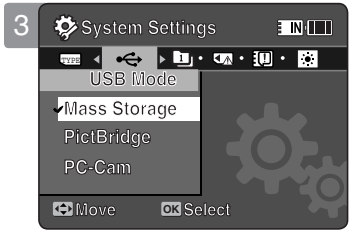
[Notes]

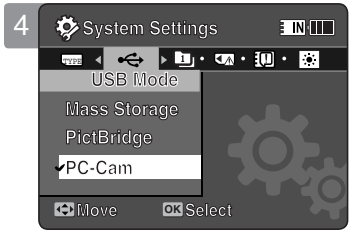
- For printing information, refer to the User's manual of the printer.
- Depending on the printer, printing failure may occur. In this case, download JPEG files directly to the PC and print them.
- Depending on the printer, date and time option may not be supported. In this case, date and time menu will not be displayed.
- Mass storage runs as the default mode when connecting with the USB.Reset USB mode to use the Pict-bridge function or PC-Cam function.

Setting the Sports Camcorder : Using USB Mode

Using the PC Cam Function

You can use this the CAM as a PC camera for video chatting, video conference and other PC camera applications.

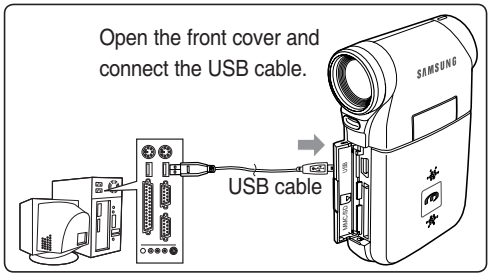


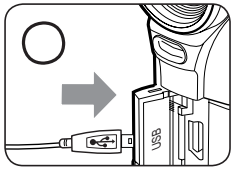


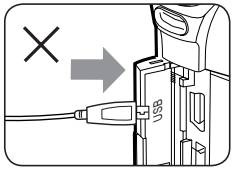
Before your start!

- For PC Cam use, it is required to install the DV Driver.➥page 124

1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.
3. **Move the [Joystick] left / right to select <USB Mode>.**
4. **Move the [Joystick] up / down to select <PC-Cam> and then press the [Joystick(OK)].**
5. **Turn on your PC.**
6. **Connect the Sports Camcorder to your PC with the USB cable.**
7. **The Sports Camcorder can be used as a PC Cam for programs such as Windows Messenger.**
   - Various applications take advantage of the PC Cam function. Refer to respective product documentation for further details.
8. **When finished, disconnect the USB cable.**







[Notes]

- You must install the DV Driver. ➥page 124
- When the USB Port connection changed, it may require DV Driver re-installation. ➥page 124
- It is recommended to use an AC Power Adapter during data transfer to avoid unintended power outages.
- Microsoft Windows 98 SE or later operating systems support the PC Cam function.
- Mass storage runs as the default mode when connecting with the USB. Reset USB mode to use the Pict-bridge function or PC-Cam function.

7 Using the External Camera Module

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Wearing the External Camera Module 120
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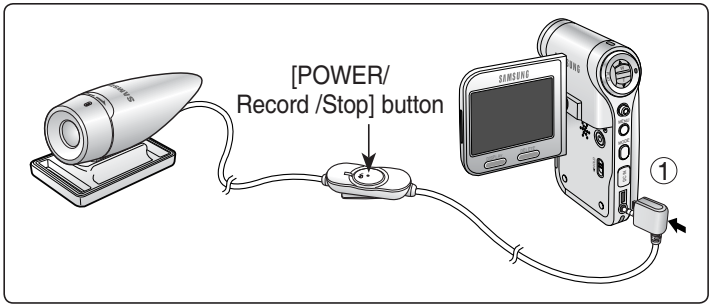
◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

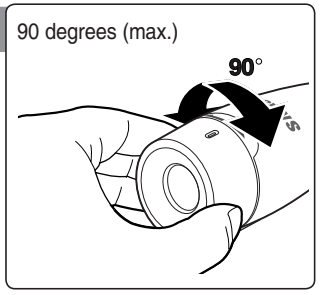
Using the External Camera Module : Recording with the External Camera Module

Recording Video using the External Camera Module

Your Sports Camcorder offers the ability to record those thrilling moments. Whether you're snow boarding or skiing you can record the moments with the External Camera Module and accessories.



1. **Connect the External Camera Module cable to the multi jack of Sports Camcorder.**
   - ◆ You may fix the External Camera Module using a Tripod (not supplied), Rubber Mount, or Mounting Band.
2. **Press the [POWER/Record /Stop] button of External Camera Module for more than 2 seconds.**
   - ◆ The power of the Sports Camcorder and the External Camera Module are turned on.
   - ◆ If you press the [POWER] button of the Sports Camcorder, only the Sports Camcorder is turned on.
3. **Turn the Picture Rotator to the desired direction.**
   - ◆ The Picture Rotator turns 90 degrees left or right to select the desired picture angle.
4. **Press the [POWER/Record /Stop] button of the External Camera Module to start recording.**
   - ◆ LED lamp lights in red.
   - ◆ Press the [Record /Stop]button of the Sports Camcorder to start recording.
5. **Press the [POWER/Record /Stop] button of the External Camera Module to stop recording.**
   - ◆ Recording stops and the Sports Camcorder is ready again.
6. **After recording, to prevent battery consumption, press the [POWER/Record /Stop] button of the External Camera Module more than 2 seconds to turn off.**
   - ◆ The power of the Sports Camcorder and the External Camera Module are turned off.
   - ◆ If you press the [POWER] button of the Sports Camcorder, only the Sports Camcorder is turned off.

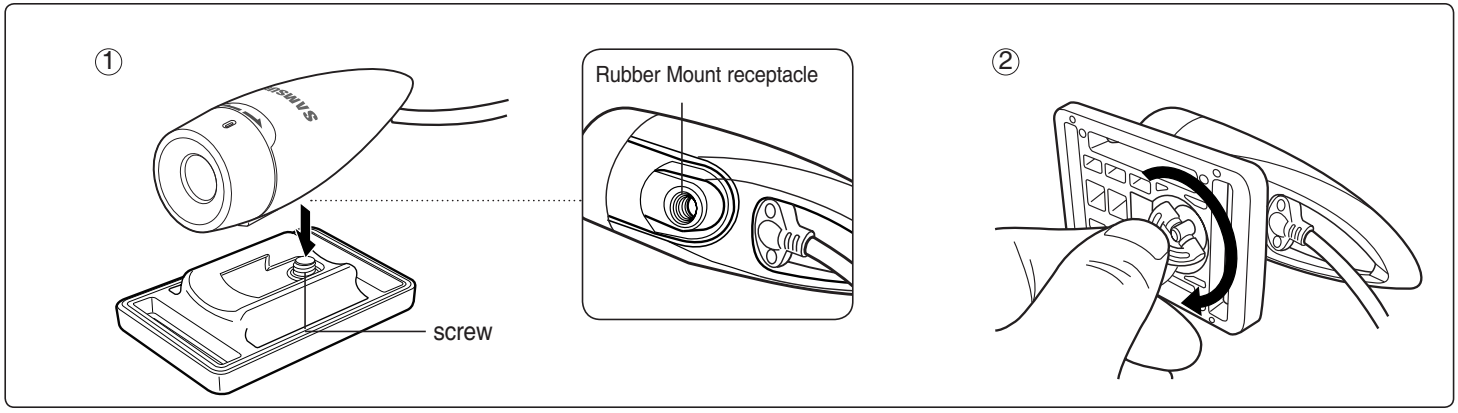


[Notes]

- ✤ The External Camera Module is available for recording movie only.
- ✤ You can use the [POWER/Record /Stop] button of the External Camera Module to power on/off and to start/stop recording simultaneously.
- ✤ Multi jack is used as a Earphones jack, AV Input/Output jack and External Camera Module jack.

ENGLISH Using the External Camera Module : Wearing the External Camera Module

Mounting the External Camera Module on Rubber Mount



1. Set the Rubber Mount receptacle of the External Camera Module to the screw of Rubber Mount.

2. Turn the Rubber Mount's screw to the right to fasten.

[Note]

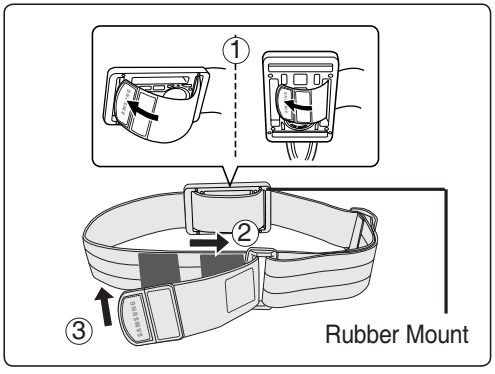
✤ Dropping the External Camera Module or bumping it to other objects may cause device failure. When using the device, you must attach it to the rubber mount, and be careful not to drop or strike it.

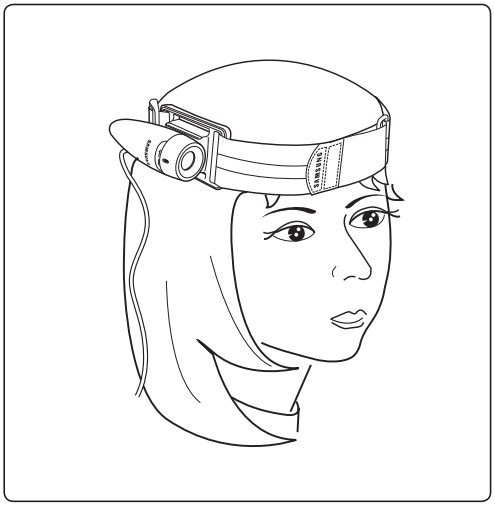
Using the External Camera Module : Wearing the External Camera Module

Using the Long Mount Bands

While the Sports Camcorder is inside your carrying case or backpack, you can attach the External Camera Module mounted on the Rubber Mount with help of the Long Mount Bands.

1. **Run the strap of Long Mount Band through both of the slots on the rubber mount as illustrated.**
   - ◆ You can use both the short part and long part of Rubber Mount as slots.
2. **Run the strap through the buckle to adjust the tightness.**
3. **Fasten the strap.**





[Notes]

- ✤ Dropping the External Camera Module or bumping it to other objects may cause device failure. When using the device, you must attach it to the rubber mount, and be careful not to drop or strike it.
- ✤ Direct contact of the Rubber Mount with your skin for a long period of time may cause skin irritation or allergy. Avoid long term contact.

8 Miscellaneous Information

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◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

Miscellaneous Information : USB Interface Environment

USB connection to a computer

High Speed USB is not guaranteed if the supplied driver is not installed on an OS other than Microsoft Windows or Apple's Mac OS X.

- Windows 98SE/ME: Full Speed USB
- Windows 2000: Service Pack 4 or higher - High Speed USB
- Windows XP: Service Pack 1 or higher - High Speed USB
- Mac OS X: 10.3 or higher - High Speed USB

System Environment

	Windows Environment		Macintosh Environment	
	Minimum	**Recommended**	**Minimum**	**Recommended**
CPU	Pentium III, 600MHz	Pentium 4, 2GHz	G3 500MHz	G4 Processor
OS	Windows 98SE/ME	Windows 2000/XP	Mac OS 10.2	Mac OS 10.3
Memory	128MB	512MB or above	128MB	512MB or above
Free space on the hard disk	200MB(For applications only. Apart from this, 1GB or more free space	2GB or above	200MB(For applications only. Apart from this, 1GB or more free space	2GB or above
Display Resolution	800x600 dots 16-bit color	1024x768 dots 24-bit color	800x600 dots 16-bit color	1024x768 dots 24-bit color
USB	USB 1.1	USB 2.0 High Speed	USB 1.1	USB 2.0 High Speed

[Notes]

- Not all PCs configured with the above environment are guaranteed to operate properly.
- USB connection using an external USB hub or an additional USB daughterboard is not guaranteed.
- If your OS is Windows 2000/XP, log in as the [Administrator(administrator of the PC)] (or a user with the equivalent privileges) to install the OS.
- If the capacity of PC is low, the movie file may not play normally or will often stop.
- If the capacity of PC is low, it may take a long time to edit the video file.
- Intel® Pentium III™ or Pentium 4™ is a trademark of the Intel Corporation.
- Mac, Macintosh and Mac OS are trademarks of Apple Computer, Inc.
- Windows® is a registered trademark of the Microsoft® Corporation.
- All other brands and names are property of their respective owners.

Miscellaneous Information : Installing Software

Installing DV Media Pro 1.0

You need to install DV Media Pro 1.0 to play back recorded movie files or the transferred data from Sports Camcorder with the USB cable on your PC.

Before your start!

- ◆ Turn on your PC. Exit all other applications running.
- ◆ Insert the provided CD into the CD-ROM drive.

The setup screen appears automatically soon after the CD was inserted. If the setup screen does not appear, click on “Start” on the bottom left corner and select “Run” to display a dialog. Type “D:\autorun.exe” and then press ENTER, if your CD-ROM drive is mapped to “D:Drive”.

Installing Driver - DV Driver and DirectX 9.0

- ◆ DV Driver is a software driver that is required to support establishing connection to a PC. (If it is not installed, some functions will not be supported.)

1. Click on “DV Driver” on the Setup screen.

- ◆ Driver software required is installed automatically. Following drivers will be installed:
  - USB Removable disk driver (Windows 98 SE only)
  - USB PC-CAMERA driver

2. Click on <Confirm> to finish driver installation.

- ◆ Windows 98 SE users need to restart the PC.

3. If the "DirectX 9.0" is not installed, it is installed automatically after setting "DV Driver".

- ◆ After installing DirectX 9.0, PC needs to be restarted.
- ◆ If DirectX 9.0 is installed already, there is no need to restart the PC.

Application Installation - Video Codec

- ◆ **Click on “Video Codec” on the Setup screen.**
  Video Codec is required to play movie files recorded by Sports Camcorder on a PC.

[Note]

✤ If a message saying “Digital Signature not found” or something similar appears, ignore the message and continue with the installation.

Miscellaneous Information : Installing Software

Application Installation – Photo Express

1. Click "Photo Express" on the Setup screen.

- It is a photo editing tool that allows users to edit images.

Application Installation – Quick Time

1. Click "Quick Time" on the Setup screen.

- QuickTime is Apple's technology for handling movie, sound, animation, graphics, text, music, and even 360-degree virtual reality (VR) scenes.

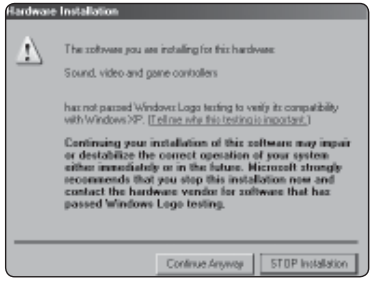
Ulead Video Studio

Setting up Ulead Video Studio

After inserting the CD, the setup screen displays automatically. Follow the instruction to start installation.
It is a video editing tool that allows users to edit movie files.

[Notes]

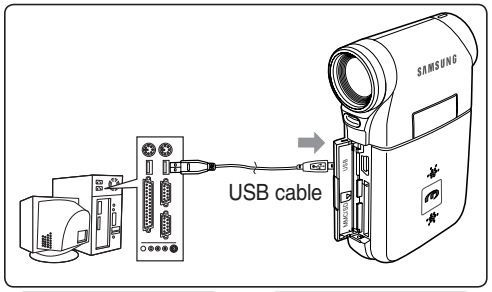
- For photo editing, use Photo Express.
- For movie playback on a PC, install software in this order : DV Driver - DirectX 9.0 - Video Codec
- For movie editing, use the Ulead Video Studio.
- For PC Cam use, it is required to install the DV Driver installation is required.
- You have to install "DV Driver", "Video Codec" and "DirectX 9.0" to run DV Media Pro 1.0 properly.
- If a message saying "Digital Signature not found" or something similar appears, ignore the message and continue with the installation.


Hardware Installation
The software you are installing for this hardware:
Sound, video and game controllers
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Miscellaneous Information : Connecting To Other Devices

Connecting to a PC using USB Cable

Connect to a PC with the provided USB cable. You can view your files on your PC.

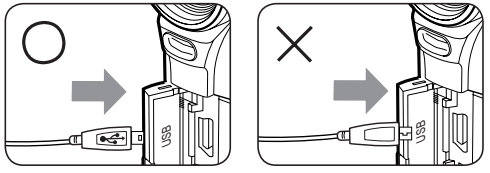


Connecting to a PC – Playing Files

1. **Press the [POWER] button to turn on the Sports Camcorder.**
2. **Connect the Sports Camcorder to the PC with the provided USB cable as shown in the diagram.**
3. **Copy the file to your PC.**
   - We recommend copying the files onto your PC for better viewing.
4. **Double-click on the copied file name.**
   It starts to play back.

Disconnecting from a PC

1. **Click on the "Safely remove hardware" tray icon on the bottom right side of the desktop.**
   Select the device and click on the "Stop" button.
2. **When the message saying that it is safe to remove the hardware appears, unplug the cable from the PC.**



<Open the front cover and connect the USB cable.>

[Warning]

✤ When data communication is disrupted due to static electricity, magnetic field or other reason, restart the program or try to disconnect / connect the communication cable (USB Cable) again.

[Notes]

✤ Multiple USB devices connected to a PC or using USB hubs may cause communication / installation errors with the Sports Camcorder.

✤ Refer to page 123 for PC recommendations on USB use. Some PCs meeting the requirements may not support proper USB operation due to various reasons. Please refer to the product documentation of the PC for further details.

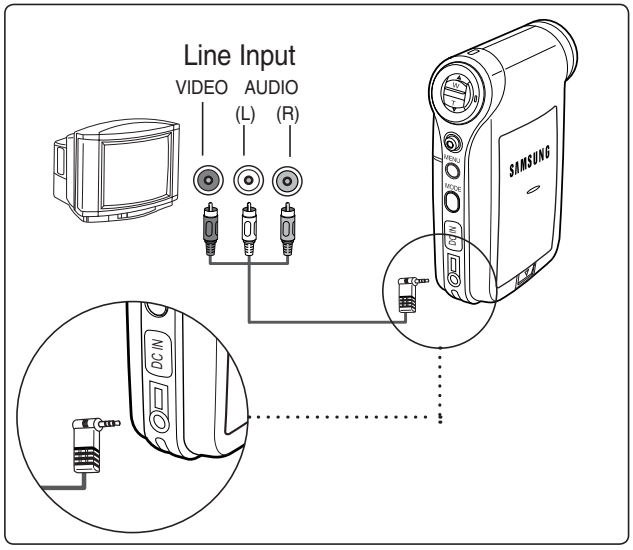
✤ If you disconnect the USB cable from the PC or the Sports Camcorder during the data transfer, the data transfer will stop and the data may be damaged.

✤ The Sports Camcorder may operate abnormally in the recommended system environment depending on your PC. For example, the movie file may play abnormally.

Miscellaneous Information : Connecting To Other Devices

Connecting to a TV monitor

You can connect your Sports Camcorder directly to a TV set. Set the appropriate video input when viewing Sports Cam playback on the TV.



1. **Connect the provided Audio/Video cable to the [Multi jack] of the Sports Camcorder.**
2. **Connect the other end of the cable to the TV set by matching the colors of the terminals.**
3. **Turn on the TV and set the TV's <Source> to the external input the Sports Camcorder is connected to.**
   - <Source> may be represented as <Line In>, <Input>, <A/V Input>, etc. depending on the manufacturer.
4. **Press the [POWER] button to turn on the Sports Camcorder.**
   - Movie Record mode is displayed on the TV screen.
5. **Press the [PLAY] button or [Joystick(OK)] to switch to Movie Play mode.**
6. **Move the [Joystick] left / right to select a movie and then press the [Joystick(OK)].**
   - It begins playback.
   - To pause playback, press the [Joystick(OK)].

[Notes]

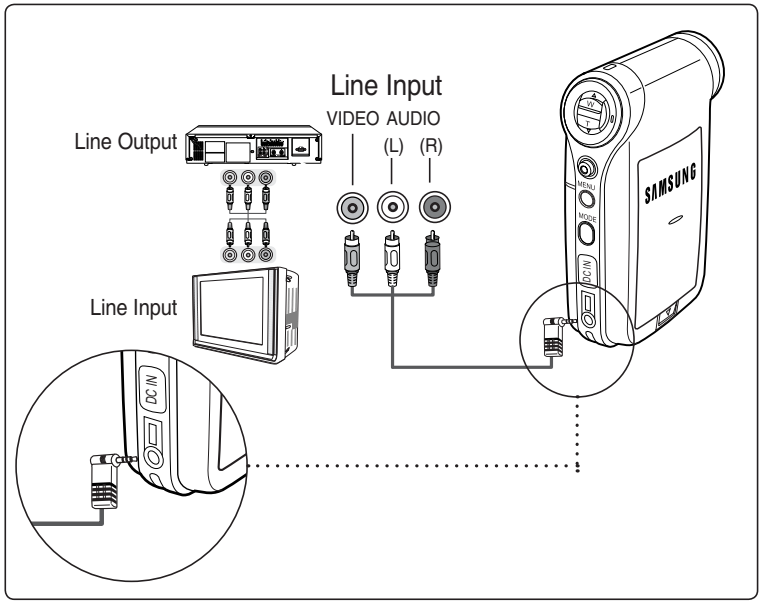
- ✤ You can play back photo files as well as movie files.
- ✤ When you connect your Sports Camcorder to a TV, some indicators may not partly appear.
- ✤ If you wish to input/output an image from another device to the Sports Camcorder, you must first set <Line In/out> in movie mode. ➥page 51

Miscellaneous Information : Connecting To Other Devices

Connecting to a VCR / DVD Recorder

You can connect your Sports Camcorder to a TV set through a VCR/DVD Recorder.

1. **Connect the provided Audio/Video Cable to the [Multi jack] of the Sports Camcorder.**
2. **Connect the other end of the cable to the VCR/ DVD Recorder by matching the colors of the terminals.**
3. **Connect the Audio/Video Cable from TV Input to Video Output of the VCR/DVD Recorder.**
4. **Turn on the TV and set the <Source> to the external input the VCR/DVD Recorder is connected.**
5. **Turn on the VCR/DVD Recorder and set the <Source> to the external input source where you connected the Sports Camcorder.**



[Notes]

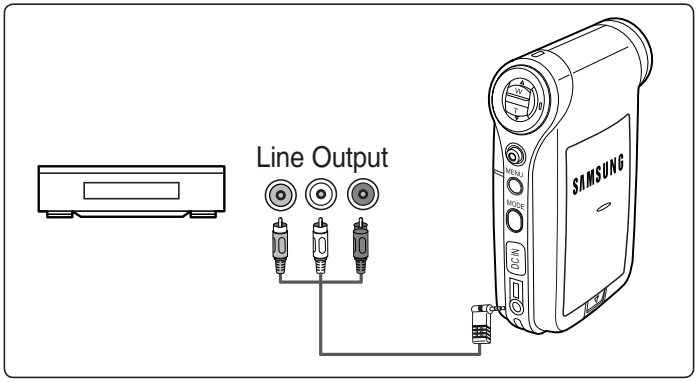
- You can play back photo files as well as the movie files.
- If you wish to input/output an image from another device to the Sports Camcorder, you must first set <Line In/out> in movie mode. ➥page 51

Miscellaneous Information : Connecting To Other Devices

Recording unscrambled content from other digital devices

You can connect other external digital devices to Sports Camcorder to record unscrambled contents.

1. **Connect the provided Audio/Video Cable to the [Multi jack] of the Sports Camcorder.**
2. **Connect the Audio/Video cable to the external output terminal of your digital devices (DVD, DVC, etc.) by matching the cable to the colors of the terminals.**
3. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
4. **Press the [MENU] button.**
   Move the [Joystick] left / right to select <Line In/Out>.
5. **Move the [Joystick] up / down to select <In> and then press the [Joystick(OK)].**
6. **Play back the other digital devices.**
7. **Press the [Record/Stop] button to start recording.**
8. **To stop recording, press the [Record/Stop] button again.**



[Note]

- The quality of an input signal recorded through the Line input terminal cannot be guaranteed unless it comes from digital devices (DVD, DVC, etc.).

Miscellaneous Information : Printing Photos

Printing with DPOF

DPOF (Digital Printing Order Format) defines the print information for each photo on the memory card. You can easily make prints using a DPOF-compatible printer or order copies from commercial digital image developers.

Printing DPOF files in the memory card

1. Set the DPOF information for the photo you want to print. ➥page 72
2. Insert a memory card into the DPOF- supporting printer.
3. Follow the steps of the printer to print out photos.

[Notes]

- For further details about printing photos, refer to the user's manual of the printer.
- Printing may not be performed depending on types of printers.
  In this case, download JPEG files directly to the PC and print them.

Maintenance : Cleaning and Maintaining the Sports Camcorder

After using the Sports Camcorder

- **For safekeeping of the Sports Camcorder, follow these steps.**
  - ✓ Turn the Sports Camcorder off.
  - ✓ Remove the Battery Pack ➥page 22.
  - ✓ Remove the Memory Card ➥page 34.
- **To prevent any damage to the LCD monitor, do not apply excessive force on its moving parts.**
- **Do not drop or in anyway shock the Sports Camcorder.**
- **For prolonged use of the Sports Camcorder, avoid using it in places subject to excessive humidity or dust.**
- **Do not leave the Sports Camcorder in places subject to:**
  - ✓ Excessive humidity, steam, soot or dust.
  - ✓ Excessive shock or vibration.
  - ✓ Extremely high (over 50°C or 122°F) or extremely low (under 0°C or 32°F) temperatures.
  - ✓ Strong electromagnetic fields.
  - ✓ Direct sunlight or in a closed car on a hot day.
- **For the safe use of the Battery Pack, follow these.**
  - ✓ To conserve battery power, be sure to turn off the Sports Camcorder when not in use.
  - ✓ Battery consumption may vary depending on the condition of use. Recording with many starts and stops, frequent zooming, and recording in low temperatures will shorten actual recording times.
  - ✓ Dispose of used Battery Packs promptly. Do not dispose of them in fire.
  - ✓ The Battery Pack will become warm during charging and use. This is not a malfunction.
  - ✓ The Battery Pack has a limited service life. If the period of use becomes noticeably shorter with a normal charge, the Battery Pack is at the end of its service life. Replace it with a new Battery Pack.
- **For the safe use of the Memory Card, follow these.**
  - ✓ The Memory Card should be stored away from heaters and other heat sources. Avoid storing Memory Cards under direct sunlight and avoid electromagnetic fields.
  - ✓ Do not power off any devices while transferring data, as this may destroy the data.
  - ✓ Back up your image data often to a hard disk or other permanent storage media.
  - ✓ Format the Memory Card periodically.
  - ✓ When formatting the Memory Card, format in the Sports Camcorder.

Maintenance : Cleaning and Maintaining the Sports Camcorder

Cleaning the Body

✤ **To Clean the Exterior of the Sports Camcorder**

- ✓ To clean the exterior, use a soft dry cloth. Wipe the body gently.
  Do not apply excessive force when cleaning, gently rub the surface.
- ✓ The LCD monitor surface should not be pressed. Use a soft dry cloth to clean the surface.
- ✓ To clean the lens, use an optional air blower to blow out dirt and other small objects. Do not wipe the lens with cloth or your fingers. If necessary, use lens cleaning paper.
- ✓ Do not use thinner, alcohol or benzene for cleaning. Otherwise, the finish may be damaged.
- ✓ Cleaning should be done only after the Battery Pack has been removed, and other power sources have been disconnected.

[Note]

✤ If the lens looks dimmer, turn off the Sports Camcorder and leave it for about 1 hour.

Using the Built-in Rechargeable Battery

The Sports Camcorder incorporates a rechargeable lithium cell that maintains the date and other settings even when the AC Power Adapter and the battery are removed. The rechargeable lithium cell is automatically recharged when the Sports Camcorder is used.

Charging the Built-in Rechargeable Battery

✤ If the Sports Camcorder is not used at all, the cell runs down in 5 days. In this case, connect the AC Power Adapter to the Sports Camcorder and press the [POWER] button to turn on the Sports Camcorder. Then leave it for 24 hours.
After that, set the date and other settings again.

Maintenance : Cleaning and Maintaining the Sports Camcorder

Regarding the Battery

- Battery pack performance decreases when the surrounding temperature is 10°C (50°F) or below, and shortens the battery life. In that case, do one of the following so that the durability of the battery life can be extended for a longer period of time.
  - Put the Battery Pack in a pocket to warm it up, and insert it in your Sports Camcorder immediately prior to use.
  - Use a large capacity Battery Pack.

- Be sure to set the power button to off when not recording or playing back. The battery power is also consumed in standby, play back and pause mode.

- Have your Battery Packs ready for two or three times the expected recording time, and make trial recordings before making the actual recording.

- Do not expose the Battery Pack to water.
  The Battery Pack is not water resistant.

- Keep the battery out of reach of children. If it is swallowed, seek medical assistance immediately.

- Wipe the battery with a clean dry cloth to ensure proper contact.

- Do not pick up the battery using metal tools as this may cause a short circuit.

- Do not short the battery or dispose of the battery in fire. Do not disassemble the battery. The battery could explode or catch fire.

- Use only recommended batteries and accessories.
  Use of batteries not expressly recommended for this equipment may cause an explosion or leakage, resulting in fire, injury or damage to the surroundings.

- Install the battery according to the instructions.
  Improperly installed batteries can cause damage to the sports camcorder.

- When you do not use for a long time, remove the Battery Pack.
  Otherwise, the battery may leak. To avoid damage to the product, be sure to remove the battery when no charge remains.

Maintenance : Cleaning and Maintaining the Sports Camcorder

Using the Sports Camcorder Abroad

- Each country or region has its own electric and color systems. (NTSC/PAL)
- Before using the Sports Camcorder abroad, check the following items:

Power Sources

- You can use the Sports Camcorder in any country or area with the supplied AC Power Adapter where the power input range is 100V - 240V, 50/60Hz.
- Use a commercially available AC plug adapter if necessary, depending on the design of the local wall outlets.

Color System

- You can view your video files using the built-in LCD monitor.
  However, to view your recordings on a television set or to copy them to a video cassette recorder (VCR), the television set or the VCR must be NTSC-compatible and have the appropriate Audio / Video ports. Otherwise, you may need to use a separate Video Format Transcoder (NTSC-PAL format Converter).

PAL-Compatible Countries / Regions

Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.

NTSC-Compatible Countries / Regions

Bahamas, Canada, Central America, Japan, Mexico, Philippines, Korea, Taiwan, United States of America, etc.

Troubleshooting

Self Diagnosis Display

Display	Informs that…	Action
Not enough free space	Not enough free space for saving files .	Check the space of internal memory or the external memory.
Corrupted file	The file is corrupted.	Delete the corrupted file.
Paper error	Paper has run out.	Check the paper in the printer. If there is no paper, insert the paper.
Ink error	Ink is low.	Check if the ink or toner is low.
File Error	The file is wrong.	Check that the file is JPEG.
Communication Error	An error has occurred while transferring data.	Disconnect the USB cable and connect it again.
Sleeping now...	Power saving mode works.	Press any button to return to previous menu.
Low battery	Battery is low.	Charge the Battery Pack or connect the AC Power Adapter.
Holding the key	The HOLD switch is locked.	Unlock the HOLD switch and operate the Sports Camcorder.
Card error	The Memory Card is corrupted.	Format the Memory Card or replace it with a new one.
Not formatted	Format the Memory Card.	Format the Memory Card.
Write error	Failed to write.	Check the memory space or format the memory.
Read error	Failed to read.	Delete the file.
Not supported format	The format is not supported.	The AVI or JPEG file that is not supported. Check the supported file. on page 30.
Write protected	Memory Card is protected to write.	Unlock the Memory Card. (except MMC)
MPEG decoding Error	The video file is corrupted.	Delete the corrupted file.

✤ If these instructions do not solve your problem, contact your nearest Samsung dealer or authorized service center/personnel.

Symptom	Possible Causes	Measure
No power is supplied	The power is not connected properly The battery is dead The battery is too cold	Connect the AC Power Adapter properly, page 25 Replace the dead Battery Pack Warm up the battery or move to warmer place
Date/Time is wrong	The Date/Time is not set	Set the Date&Time, page 104
Focus does not adjust automatically	Focus is set to manual mode Recording is being done in a dark place Lens is covered with condensation	Set focus to AUTO Use the flash or light the location Clear the lens and check the focus
The Memory Card will not load properly	The Memory Card is in wrong position A foreign object is in the Memory Card slot	Insert the Memory Card properly, page 34 Clear the Memory Card slot

Troubleshooting

Symptom	Possible Causes	Measure
Color balance of picture is not natural	White balance adjustment is required	Set proper white balance, page 61
Digital zoom does not work	The effect(Digital special effect) is applied	Turn off the effect(Digital special effect), page 63
Files stored in the Memory Card cannot be deleted	Memory Card is protected File is locked	Remove the protection tab of Memory Card (except MMC) Remove the lock on the file, page 54, 73, 81, 88, 93
Images on the LCD monitor appear dark	Ambient is too bright Ambient temperature is too low	Adjust the brightness and angle of LCD Low temperatures may produce a dark LCD display This is not a malfunction
Rear of the LCD monitor is hot	Prolonged use of the LCD monitor.	Close the LCD monitor to turn it off, or turn your device off to cool down
Play, rewind and fast forwarding do not work	The Photo Mode is selected	Select 'Movie Mode' and select 'Play'
Memory Card cannot be played back (Photo mode)	The Movie Mode is selected	Select 'Photo Mode' and select 'View'
No picture is taken	Not enough free memory space is remained Memory Card is formatted by different devices	Delete files from the Memory Card or internal memory Format the Memory Card on the Sports Camcorder
Built-in flash does not fire	Light is forced to cancel Light is not available for recording	Select different Flash mode, page 64
Cannot Record a video	The 'Photo Mode' is selected	Select 'Movie Mode'
The LCD monitor turns off	To save power consumption, the LCD monitor and Sports Camcorder's power turns off if there is no button operation for a certain period of time (depending on operation mode).	Operating any button will turn the Sports Camcorder on Pressing the button once again will operate its function

Using the Menu

Movie

1. Record

- Size
  - 720x480
  - 352x240
- Quality
  - Super Fine
  - Fine
  - Normal
- White Balance
  - Auto
  - Daylight
  - Fluorescent
  - Tungsten
  - Custom
- Program AE
  - Auto
  - Sports
  - Spotlight
  - Sand/Snow
- Effect
  - Off
  - Art
  - Mosaic
  - Sepia
  - Negative
  - Mirror
  - B&W
- EIS
  - On
  - Off
- Focus
  - AF
  - MF
- BLC
  - On
  - Off
- Digital Zoom
  - On
  - Off
- Record Mode
  - TV
  - PC
- Line In/Out
  - In
  - Out

2. Play

- Play Mode
  - Play One
  - Play All
  - Repeat One
  - Repeat All
- Lock
  - Lock
  - Multi Select
  - Lock All
  - Unlock All
- Copy To
  - OK
  - Multi Select
  - All

Photo

1. Capture

- White Balance
  - Auto
  - Daylight
  - Fluorescent
  - Tungsten
  - Custom
- Program AE
  - Auto
  - Sports
  - Spotlight
  - Sand/Snow
- Effect
  - Off
  - Art
  - Mosaic
  - Sepia
  - Negative
  - Mirror
  - B&W
- Flash
  - On
  - Auto
  - Off
- Continuous Shot
  - Off
  - 3 shots
- EIS
  - On
  - Off
- Focus
  - AF
  - MF
- BLC
  - On
  - Off
- Digital Zoom
  - On
  - Off

2. View

- Slide
  - Start
  - Interval (sec.)
  - Repeat
- DPOF
  - Copies
  - Set All
  - Reset All
- Lock
  - Lock
  - Multi Select
  - Lock All
  - Unlock All
- Copy To
  - OK
  - Multi Select
  - All

MP3

1. Play

- Repeat
  - Off
  - Repeat One
  - Repeat Folder
  - Repeat All
  - Shuffle Folder
  - Shuffle All
- Equalizer
  - Off
  - Pop
  - Classic
  - Jazz
- Lock
  - Lock
  - Multi Select
  - Lock All
  - Unlock All
- Copy To
  - OK
  - Multi Select
  - All

Using the Menu

Voice Recorder

1. Record
2. Play

Play Mode
- Play One
- Play All
- Repeat One
- Repeat All

Lock
- Lock
- Multi Select
- Lock All
- Unlock All

Copy To
- OK
- Multi Select
- All

File Browser

Lock
- Lock
- Multi Select
- Lock All
- Unlock All

Copy To
- OK
- Multi Select
- All

File Info.
- OK

System Settings

Storage Type
- Internal
- External

USB Mode
- Mass Storage
- PictBridge
- PC-Cam

File No.
- Series
- Reset

Format
- Internal
- External

Memory Space
- 000MB/000MB

LCD Brightness
- 0%
- 100%

LCD Color
- 0%
- 100%

Date&Time Set

Date Format
- YY/MM/DD
- DD/MM/YY
- MM/DD/YY

Time Format
- 12 Hour
- 24 Hour

Date/Time
- Off
- Date
- Time
- Date/Time

Beep Sound
- On
- Off

Start-up
- Movie Mode
- Previous Mode

Reset
- OK

Language
- English / Español / Français / Português / Deutsch / Italiano / Nederlands / Polski / Русский / 한국어 / 中文 / Iran / Arab / Magyar / ไทย / Українська / Svenska

Auto Shut off
- Off
- 5 Minutes

Demonstration
- Off
- 5 Minutes
- Play Now

Version Info

Specifications

Model Name	SC-X205L/X210L/X220L	
The Sports Camcorder System		
Movie Recording System	MPEG4 AVI Format	
Photo System	JPEG (640x480, DPOF, Exif 2.2)	
MP3	Stereo Playing	
Voice	WAVE File Recording/Play (8KHz Sampling, 16 bit, Stereo)	
Memory	Internal memory	512MB (SC-X205L)
		1GB (SC-X210L)
		2GB (SC-X220L)
	External memory	SD
		MMC
CCD Pixel	1/6 inch CCD, 680K(Maximum)	
Optical Zoom Ratio	x10	
Focal Length	f=2.4~24mm, F1.8~2.4	
Minimum Illumination	3.0 Lux	
LCD monitor	2.0” Transmission Type, 230K	
Connectors		
USB	Mini-B type (USB 2.0 High Speed)	
DC Power In connector	Proprietary 3 pins connector	
Multi jack – Earphones	Ø 3.5 Stereo	
Multi jack – AV Input/Output	Video (1.0p_p, 75Ω), Audio (-7.5dBm 47KΩ, Stereo)	
	External CMOS Camera	
General		
Operating Temperature	0°C-40°C (32°F-104°F)	
Operating Humidity	10%-80%	
Power Source	3.8V (Li-Polymer Battery Pack), 4.8V (AC Adapter)	
Power Consumption	2.8W (LCD ON)	
Dimensions (WxHxD)	2.41 inch X 3.68 inch X 1.19 inch (Including the Battery Pack)	
Weight	5.29 oz	
Built-in Microphone	Omni-directional condenser microphone	

Specifications

Model Name	SC-X205L/X210L/X220L
AC Adapter	
Power Requirement	AC 100 ~ 240V, 50 / 60 Hz
DC Output	DC 4.8V, 1.0 A
Operating Temperature	0°C (32°F) ~ 40° (104°F)
Dimensions	2.76 inch X 1.17 inch X 2.33 inch
Weight	3.00 oz.

Model Name	XC-L2N
External CMOS Camera	
CMOS Pixel	1/4 inch CMOS, 320K(Maximum)
Video Resolution	640x480 (VGA)
Exposure	Auto
White Balance	Auto
Focus Type	Fixed
Focal Length	f=5.56mm, F2.0
Connector	
AV Output	Video (1.0Vp_p), Audio (-7.5dBm 47KΩ, Input : mono)
General	
Operating Temperature	0°C~40°C (32°F~104°F)
Operating Humidity	20%~80%
Power Source	B+ (3.2V~4.8V)
Power Consumption	0.7W
Dimensions (LxHxD)	3.67 inch X 1.37 inch X 1.31 inch
Weight	3.39 oz.
Built-in Microphone	Omni-directional condenser microphone

The product design and specifications are subject to change without notice for better performance and quality.

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Warranty (SEA users only)

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SAMSUNG Electronics America Inc. (SEA), warrants that this product is free from defective material and workmanship. SEA further warrants that if product fails to operate properly within the specified warranty period and the failure is due to improper workmanship or defective material, SEA will repair or replace the product at its option.
All warranty repairs must be performed by a SEA authorized service center. The name and address of the location nearest you can be obtained by calling toll free: 1-800 SAMSUNG (1-800-726-7864).
Labor
90 days carry-in
Parts
1 year
On carry-in models, transportation to and from the service center is the customer's responsibility.
The original dated sales receipt must be retained by the customer and is the only acceptable proof of purchase.
It must be presented to the authorized service center.

EXCLUSIONS (WHAT IS NOT COVERED)

This warranty does not cover damage due to accident, fire, flood and/or other acts of God; misuse, incorrect line voltage, improper installation, improper or unauthorized repairs, commercial use, or damage that occurs in shipping.
Exterior and interior finish, lamps, and glass are not covered under this warranty.
Customer adjustments which are explained in the instruction manual are not covered under the terms of this warranty.
This warranty will automatically be voided for any unit found with a missing or altered serial number. This warranty is valid only on products purchased in the United States and Puerto Rico.
Some States do not allow the exclusions or limitations of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.
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	U.A.E	800SAMSUNG (7267864)	www.samsung.com/mea

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THE SPORTS CAMCORDER IS MANUFACTURED BY:

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RoHS compliant
Our product complies with "The Restriction Of the use of certain Hazardous Substances in electrical and electronic equipment", and we do not use 6 hazardous materials- Cadmium(Cd), Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr^{+6}), Poly Brominated Biphenyls (PBBs), Poly Brominated Diphenyl Ethers(PBDEs)- in our products.

AD68-00994A

SAMSUNG

Sports Camcorder

Quick Guide

SC-X205L/X210L/X220L

Contents

1 Getting to know/Charging the Sports Camcorder
3 External Camera Module
5 Setting time and mode
7 LCD Screen Display
8 Video Mode
9 Photo Mode
10 MP3 Mode
11 Voice Recorder Mode
12 Connecting to a PC
13 Installing Software
14 Connecting the Sports Camcorder to other devices
15 Using Function Buttons / Battery Capacity

A memory card is not supplied.

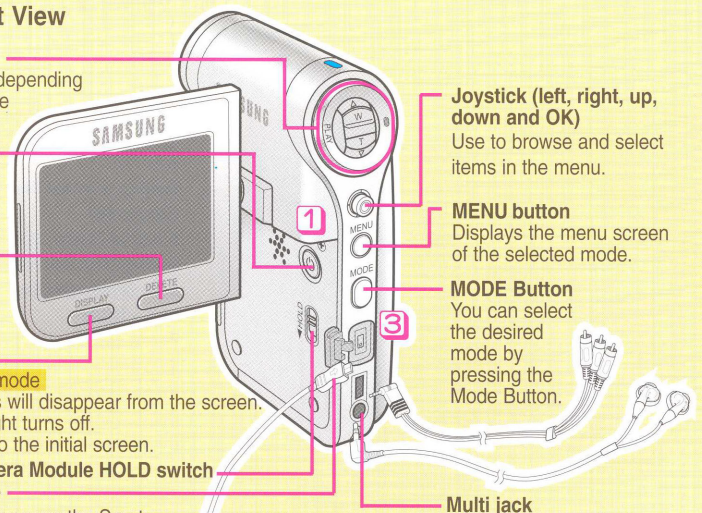
Read this guide for easier and quicker use of

The Sports Camcorder!

AD68-01004A ENG

Getting to know/Charging the Sports Camcorder

Rear & Left View



Function buttons
The functions vary depending on the mode you are operating in.

POWER button
Power On:
Press Once
Power Off:
Press Once while powered on

DELETE button
Deletes the files or folders.

DISPLAY button
In Movie or Photo mode
Once : All indicators will disappear from the screen.
Twice : The back light turns off.
3 times : It returns to the initial screen.

MP3/External Camera Module HOLD switch

AC Power Adapter
You can recharge or power the Sports Camcorder by plugging this adapter into the DC In jack of the Sports Camcorder.

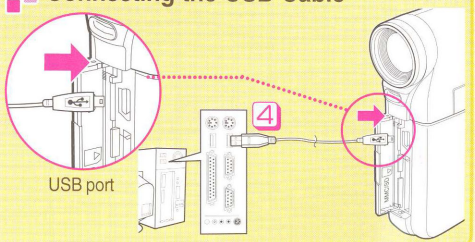
Joystick (left, right, up, down and OK)
Use to browse and select items in the menu.

MENU button
Displays the menu screen of the selected mode.

MODE Button
You can select the desired mode by pressing the Mode Button.

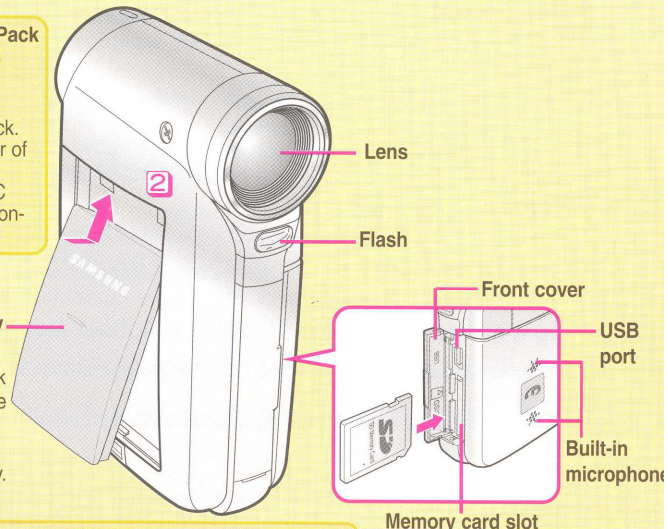
Multi jack

Connecting the USB Cable



Side & Front View

Charging the Battery Pack
1. Turn off the power by pressing the [Power] button.
2. Insert the Battery Pack.
3. Open the Front Cover of the camcorder.
4. Recharge with the AC adapter or via USB connection to your PC.



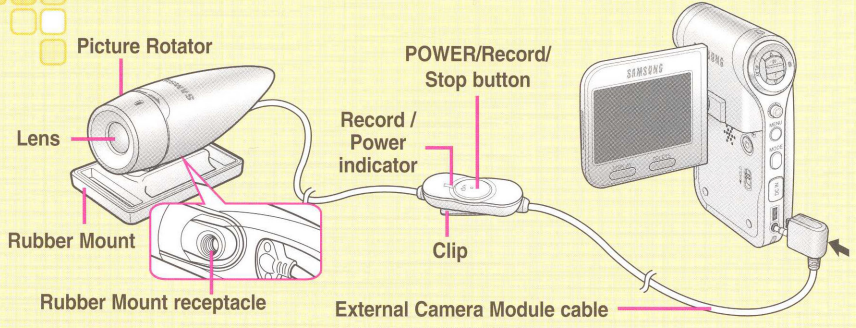
Inserting the Battery Pack
Slide the Battery Pack and fix it to the groove until it clicks.
Be sure to insert the Battery Pack correctly.

Inserting/Ejecting a Memory Card
Insertion: Open the LCD monitor and open the front cover. Insert the memory card into the memory card slot as shown in the figure.
Ejection: Press the memory card slightly to eject it.

If you insert a memory card when the Sports Camcorder is on, the pop-up screen about memory type selection appears automatically. If you select <OK>, the memory type changes to 'External'and if you select <Cancel>, files are stored in internal memory.

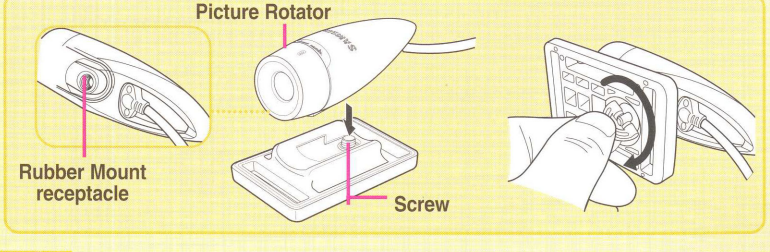
Usable Memory Cards (2GB Max) (not supplied)

External Camera Module



Mounting the External Camera Module on Rubber Mount

1. Set the Rubber Mount receptacle of the External Camera Module to the screw of Rubber Mount.
2. Turn the Rubber Mount screw to the right to fasten to the External Camera Module.



Recording Video Using the External Camera Module

1. **Connect the External Camera Module cable to the multi jack of Sports Camcorder.**
   - ◆ You may fix the External Camera Module using a Tripod Receptacle(not supplied), Rubber Mount or Mounting Band.
2. **Press the [POWER/Record /Stop] button of the External Camera Module more than 2 seconds.**
   - ◆ The power of the Sports Camcorder & the External Camera Module is turned on.
   - ◆ If you press the [POWER] button of the Sports Camcorder, only the Sports Camcorder is turned on.
3. **Turn the Picture Rotator until the desired picture angle is obtained.**
   - ◆ Picture Rotator turns upto 90 degrees left or right.
4. **Press the [POWER/Record /Stop] button of the External Camera Module shortly to start recording.**
   - ◆ LED lamp lights in red.
   - ◆ Press the [Record /Stop] button of the Sports Camcorder to start recording.
5. **Press the [POWER/Record /Stop] button of the External Camera Module shortly to stop recording.**
   - ◆ It stops recording and the Sports Camcorder is ready to record again.
6. **After recording, to prevent battery consumption, press the [POWER/Record /Stop] button of the External Camera module more than 2 seconds to turn off.**
   - ◆ The power of the Sports Camcorder & the External Camera Module are turned off.
   - ◆ If you press the [POWER] button of the Sports Camcorder, only the Sports Camcorder is turned off.

Tip

- ◆ The External Camera Module operates in Movie mode only.
- ◆ You can use the [POWER/Record /Stop] button of the External Camera Module to power on/off and to start/stop recording simultaneously.
- ◆ Multi jack is used as an Earphones jack, AV Input/Output jack or External Camera Module jack.

Setting time and mode

Powering On and Off

Power On: Press the [POWER] button once
Power Off: Press it once while powered on

Functions of Each Mode

Refer to Owner's Instruction Book for further details.

Movie Mode
You can record and play movie files.

Voice Recorder Mode
You can record and listen to voice files.

Photo Mode
You can take and view photo files.

File Browser Mode
You can delete, lock, copy files and view file information.

MP3 Mode
You can download and listen to music files.

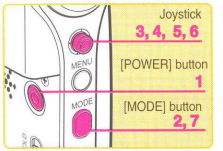
System Settings Mode
Using this mode, you can set / adjust settings regarding the LCD display, Date / Time, Reset, and Memory management.

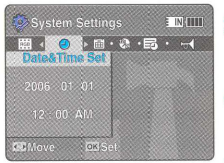
Power Saving Function
The LCD monitor is turned off after a certain period of time has passed (see below) in each mode in order to prevent unnecessary battery power consumption. Press any button to go back and turn on the LCD monitor.

Mode	Video	Photo	MP3	Voice	File Browser	System Settings	USB
Time	10 min.	3 min.	30 sec.	30 sec.	30 sec.	60 sec.	60 sec.

Setting Date/Time

You can set the date/time using this menu.



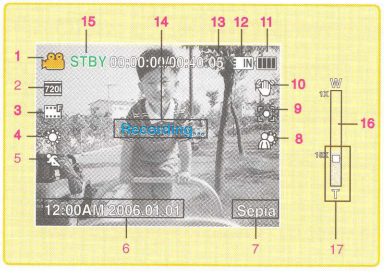


1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *System Settings* mode by pressing the [MODE] button.**
   - The System Settings screen appears.
3. **Move the [Joystick] left / right to select <Date&Time Set> and then press the [Joystick(OK)].**
4. **Set the desired value by moving the [Joystick] up / down.**
5. **Move to the next item by moving the [Joystick] left / right, and then set values by moving the [Joystick] up / down.**
   - Items are displayed in the order of the date format.
   - By default, it appears in the order of Year, Month, Date, Hour, Minute and AM/PM.
6. **After setting the last item, press the [Joystick(OK)] to finish the setting.**
7. **After you finish setting, move to the desired mode by pressing the [MODE] button.**

LCD Screen Display

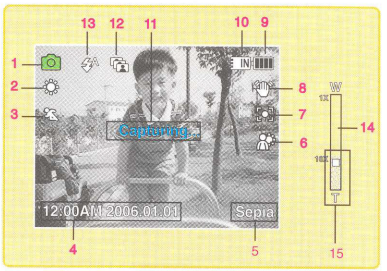
The LCD screen displays operation and setting information of the Sports Cam.

Movie Record Mode



1. Mode indicator
2. Image size indicator
3. Image quality indicator
4. White Balance indicator
5. Program AE indicator
6. Date/Time indicator
7. Effect indicator
8. BLC indicator
9. Focus indicator
10. EIS indicator
11. Battery life indicator
12. Memory type indicator
13. Counter (Elapsed time/Remaining time)
14. Warning and note indicator
15. Record/Stop indicator
16. Optical Zoom indicator
17. Digital Zoom indicator

Photo Capture Mode

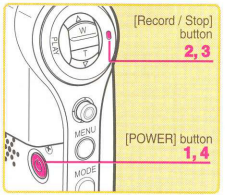


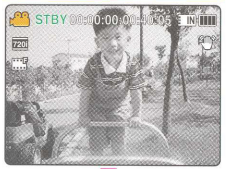
1. Mode indicator
2. White balance indicator
3. Program AE indicator
4. Date/Time indicator
5. Effect indicator
6. BLC indicator
7. Focus indicator
8. EIS indicator
9. Battery life indicator
10. Memory type indicator
11. Warning and note indicator
12. Multi Shot Indicator
13. Flash Indicator
14. Optical Zoom indicator
15. Digital Zoom indicator

◆ Refer to Owner's Instruction Book for further details.

Movie Mode

Recording a Movie

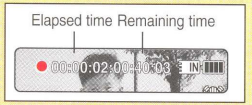




1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
   - You can select Movie mode or Previous mode as the start-up mode in System Settings.
2. **Press [Record/Stop] button to start recording.**
   - < ● > indicator displays on LCD screen.
   - The elapsed and remaining times are displayed and it starts recording.
3. **Press the [Record/Stop] button again to stop recording.**
4. **After recording, press the [POWER] button to turn off the Sports Camcorder to prevent battery power consumption.**

Reading the Counter

The time stamp will be recorded along with the movie to enable faster searching.

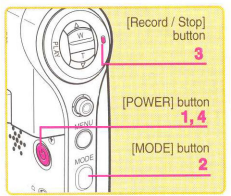


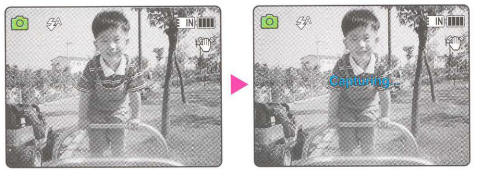
Playing Movie files

1. **Press the [PLAY]button or [Joystick(OK)] in Move Record mode.**
   - Switches to Movie Play mode.
2. **Move the [Joystick] left/right to find the movie file you want to view.**
   - Each movement of the [Joystick] goes to the previous/next movie.
3. **Press the [PLAY]button or [Joystick(OK)] to play the movie file you want.**
   Each time you press the [PLAY] button or Joystick(OK)], play or pause is selected repeatedly.

Photo Mode

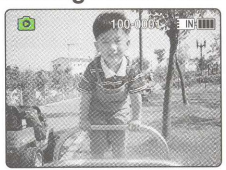
Capturing Images





1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *Photo* mode by pressing the [MODE] button.**
   - The Photo Capture screen appears.
3. **Press the [Record / Stop] button to take a picture.**
4. **After capturing, press the [POWER] button to turn off the Sports Camcorder to prevent battery power consumption.**

Viewing Photo Files



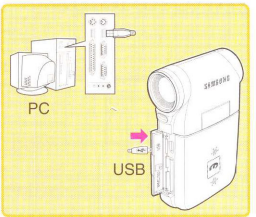
1. **Press the [PLAY] button or [Joystick(OK)] in Photo Capture mode.**
   - Switches to Photo View mode.
2. **Move the [Joystick] left / right to find the photo you want to view.**
   - Each movement of the joystick goes to the previous / next photo.

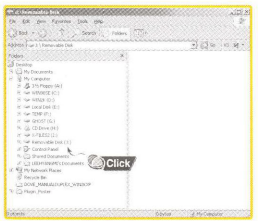
MP3 Mode

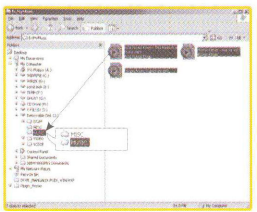
Listening to MP3 files

You can copy mp3 files from a PC to the Sports Camcorder via a USB connection.

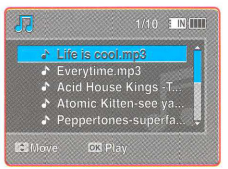
Listening to MP3 files

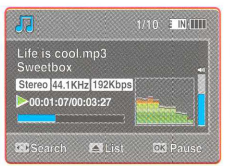






1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Connect the Sports Camcorder to the PC using the USB cable provided.**
   - A - Connect the USB cable to the Sports Camcorder.
   - B - Connect the other end of the USB cable to the PC.
3. **Double-click the new removable drive to open.**
4. **Select the MUSIC folder and double-click to enter.**
5. **Drag and drop the MP3 file from your PC into the MUSIC folder.**
   - The maximum music memory capacity is 2000 MP3 files.
6. **Select a music file to play by moving the joystick up / down, and then press the [Joystick(OK)].**
   - The selected music file is played back.

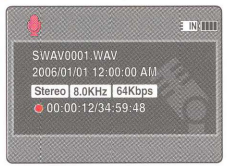




Listening to Voice files

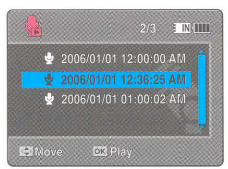
You can play back recorded voice files using the built-in speaker.

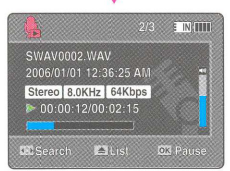
Recording voice files



1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *Voice Recorder* mode by pressing the [MODE] button.**
   - The Voice Record screen appears.
3. **Press the [Record / Stop] button to start recording.**
   - < ● > icon appears on the screen and starts recording.
4. **To stop recording, press the [Record / Stop] button again.**

Playing voice files

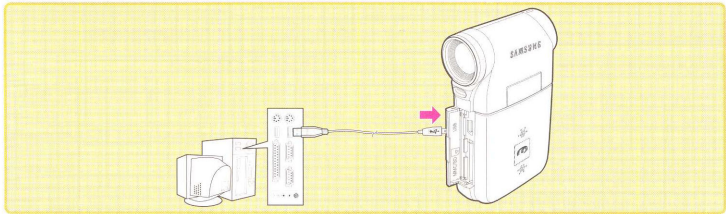




1. **Press the [POWER] button to turn on the Sports Camcorder.**
   - The Movie Record screen appears.
2. **Set the *Voice Recorder* mode by pressing the [MODE] button.**
   - The Voice Record screen appears.
3. **Press the [PLAY] button or [Joystick(OK)].**
   - The Voice Playlist screen appears.
   - When you record the voice file after you set date&time, the date&time displayed on the LCD monitor indicates the date & time you started to record.
4. **Select a voice file to play by moving the [Joystick] up/down, and then press the [Joystick(OK)].**
5. **The selected voice file is played back.**
   - To pause playing back, press the [Joystick(OK)].
   - To search backward / forward, move the [Joystick] left / right.
6. **To adjust the volume, move the [Joystick] up / down.**
   - Volume indicator appears and disappears after few seconds.

Connecting the PC to the Sports Camcorder

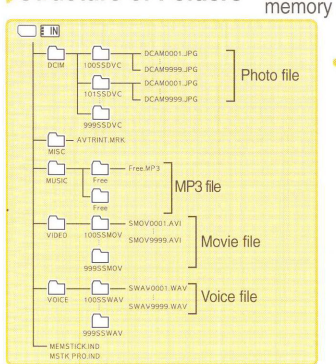
You can transfer the captured images or recorded files in your Sports Camcorder to your PC.



1. **Turn on the power of the Sports Camcorder, and connect it to a PC with the USB cable.**
2. **Confirm the <Removable storage device> is recognized on windows screen on the PC.**
3. **Select the Removable Storage Device and folders as shown below will appear.**

Structure of Folders

The movie files and photo files are stored in internal memory or memory card as below.



Tip
- ✓Do not turn the power off while recording, playing, erasing files or formatting.
- ✓Turn the power off before you insert or eject the memory card to avoid losing data.
- ✓Save important files separately.
- ✓Memory cards are made with precision technology. They are sensitive and vulnerable to electric shock, temperature and humidity, be cautious when handling to avoid losing data.
- ✓Damaged data may not be recovered, and SAMSUNG is not responsible for lost data. Make sure to back up important files on your PC.

Installing Software

Installing Software

1. Insert the software CD into a PC.
2. Install programs below.

Installing Driver -

DV Driver and DirectX 9.0

1. **Click "DV Driver" on the Setup Screen. Driver software required is installed automatically.**
   - USB Removable disk driver (Windows 98SE only)
   - USB PC-CAMERA driver
2. **Press <Confirm> to finish program installation.**
   Window 98 SE users need to restart the Windows.
3. **If the "DirectX 9.0" is not installed, it is installed automatically after setting "DV Driver".**
   After installing DirectX 9.0, PC needs to be restarted.
   If DirectX 9.0 is installed already, there is no need to restart the PC.

Application Installation - Video Codec

Click "Video Codec" on the Setup screen.

Video Codec is required to play movie files recorded by Sports Camcorder .

Application Installation - "Photo Express"

Click "Photo Express" on the Setup screen.

It is a photo editing tool that allows users to edit images.

Setting up the Ulead Video Studio

After inserting the CD, the setup screen displays automatically. Follow the instructions to start installation.

It is a video editing tool that allows users to edit movie files.

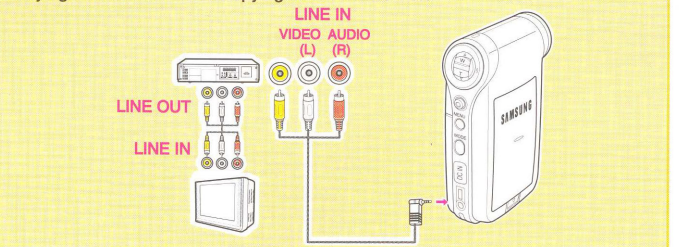
Tip
- ✓ For photo editing, use Photo Express.
- ✓ For movie playback on a PC, install software in this order : DV Driver - DirectX 9.0 - Video Codec
- ✓ For movie editing, use the Ulead Video Studio
- ✓ For PC Cam use, DV Driver installation is required.
- ✓ If a message saying "Digital Signature not found" or something similar appears, ignore the message and continue with the installation.

Connecting the Sports Camcorder to other devices

Connecting to TV and VCR

You can play or copy movie files after connecting the Sports Camcorder to a TV, VCR or DVD recorder.

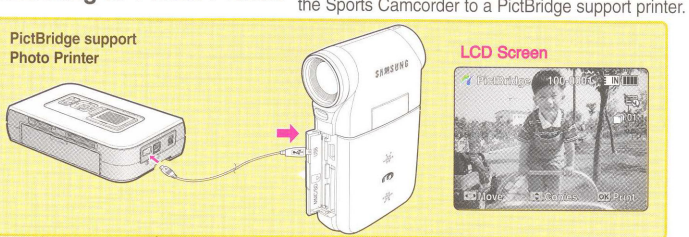
Playing movie files on TV / Copying movie files to VCR



1. **Connect the Sports Camcorder to your VCR with the Audio/Video cable.**
2. **Connect the Audio/Video Cables from TV's Audio / Video In to the VCR's Audio / Video Out.**
3. **Turn on the TV and set the <Source> to the external input the VCR is connected to.**
   - ◆ Please refer to the TV/VCR's product documentation for detailed instructions.

Connecting to Photo Printer

You can print your photo files directly if you connect the Sports Camcorder to a PictBridge support printer.



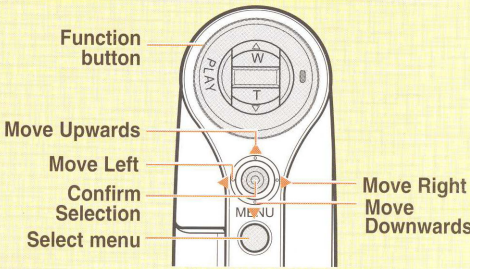
If you connect the USB cable to the Sports Camcorder, the USB mode screen appears automatically. Select <PictBridge> and set the print information.

15 Using Function Buttons / Battery Capacity

The Function button is used to make a selection, move the cursor, select the functions and exit from the menu.

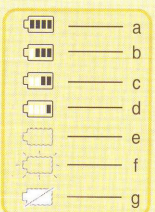
Button	Recording / Picture taking	Playing/Viewing
	Zoom out (▲)	Multi-Play screen / List
	Zoom in (▼)	-
	Change from Record/ Capture to Play/View	Play/Pause
	Recording	Change from Play / View to Record / Capture

Function buttons



◆ Please refer to the Owner's Instruction Book for detailed instructions.

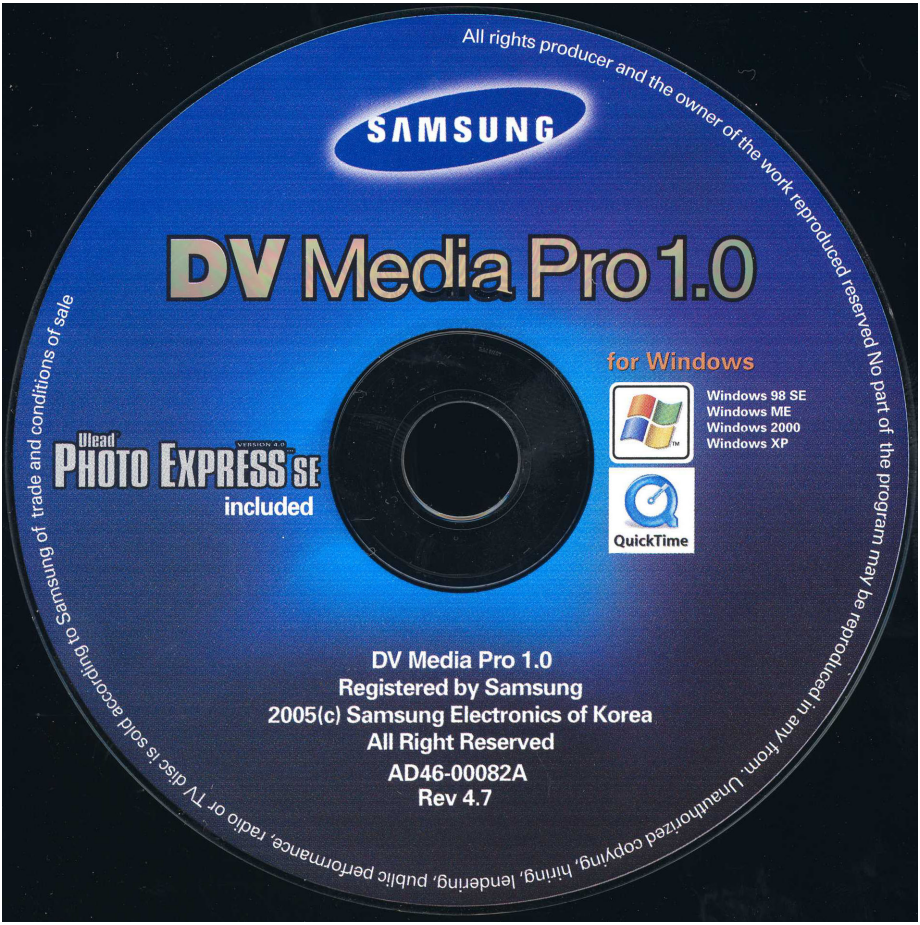
Battery Level Display



a. Fully charged
b. 20~40% used
c. 40~60% used
d. 60~80% used
e. 80~95% used
f. Exhausted (flickers)
The device will soon turn off. Change the Battery Pack as soon as possible.
g. (flickers)
The device will be forced to turn off after 5 seconds.

Charging time based on battery type

Capacity	using AC power Adapter	using USB cable
SB-P120A (1200mAh)	Approx. 1 hr. 50 min	Approx. 3hr. 40 min
SB-P190A (1900mAh)	Approx. 3 hr. 20 min	Approx. 6hr. 20 min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MODEL NUMBER PRODUCT SERIAL NUMBER

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HOUSEHOLD INCOME: LESS THAN $35,000 $35-49,999 $50-74,999 $75-99,999 $100,000-149,999 $150,000-199,999 $200,000 and over

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* When do you buy new electronic products?
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* When do you make a purchasing decision?
  Before visiting the store, At the store

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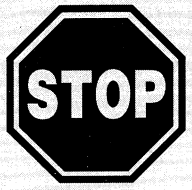

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